

**GROUNDWATER PERFORMANCE
MONITORING REPORT**

June 2012 Sampling

**ROTH BROS. SMELTING CORP.
CORRECTIVE ACTION MANAGEMENT UNIT (CAMU)**

**Prepared For:
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Engineers • Environmental Scientists • Planners • Landscape Architects

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1.0 INTRODUCTION

This report presents the results of the June 2012 groundwater monitoring performed at the Corrective Action Management Unit (CAMU) located at the former Wabash Aluminum Alloys, LLC (Wabash) facility located at 6223 Thompson Road, East Syracuse, Onondaga County, New York (Site). The Plant #2 portion of the site is now owned by Metalico Syracuse Realty, Inc. (MSR), and Thompson Corners, LLC owns the Plant #1 portion of the Site.

Metalico Aluminum Recovery, Inc. (MARI) currently operates a scrap metal recycling facility and a secondary aluminum smelting operation at the MSR portion of the site. By agreement with Wabash, MARI assumed "Wabash's obligations to conduct ongoing environmental monitoring and testing at the Site" under a Consent Order with the New York State Department of Environmental Conservation (NYSDEC) that was entered into by Roth Bros. Smelting Corp. (Index # C7-0001-94-10), the owner of the Site at the time the CAMU was constructed. To satisfy this contractual obligation, MARI retained Barton & Loguidice, P.C., to prepare this report.

This report has been prepared in accordance with the site Operations and Maintenance Plan (Malcolm Pirnie, 1997) and the subsequent Sampling & Analysis Plan revisions [Appendix D to the Operations and Maintenance Plan] as a result of letter correspondence with NYSDEC in 2002, and the approval letter from NYSDEC in April 2011.

Samples were collected from nine (9) monitoring wells and two (2) surface water/sediment sampling locations on June 18, 2012. Two (2) sediment and three (3) monitoring well locations were re-sampled for confirmatory analysis of results inconsistent with historical data on July 31 and August 9, 2012, respectively. All samples were collected by personnel from Barton & Loguidice, P.C. and were submitted to and analyzed by Columbia Analytical Services (CAS) in Rochester, New York.

Figure 1 shows the location of the Plant #1 and Plant #2 properties. The asphalt-paved CAMU area is located north of Plant #2. The monitoring locations associated with the CAMU groundwater performance monitoring, are included on Figure 1.

Groundwater sampling was performed on a quarterly basis prior to June 2005 after which semi-annual monitoring was performed through 2010. Beginning with the June 2011 monitoring event, sampling is now performed on an annual basis in June of each year. This report addresses the data generated from the June 2012 monitoring.

2.0 CAMU GROUNDWATER, SURFACE WATER, AND SEDIMENT PERFORMANCE MONITORING

2.1 Monitoring Well Inspection

The following monitoring wells are sampled as part of the CAMU Groundwater Monitoring Performance Program (see Figure 1):

B291	B281	B290	B401	B286*
B402R	B403	B404	MW-8R	*Requested by NYSDEC

Over the course of time, several CAMU monitoring wells have been inadvertently damaged, destroyed, or needed maintenance including:

- Monitoring well B280, formerly located north of the CAMU, was destroyed in September 2000. Based on its adjacent location, monitoring well B291 replaced monitoring well B280.
- Between the June 2004 and September 2004 sampling events, monitoring well B402 was destroyed. Monitoring well B402R was installed in November 2005 and began to be sampled for the December 2005 sampling event. The destroyed well (B402) was properly decommissioned using a rotary drilling rig on April 24, 2007.
- Monitoring well MW-8, installed as part of the 2001 Groundwater Investigation, was destroyed during construction of scrap yard improvements. Subsequently, monitoring well MW-8R was installed adjacent to the MW-8 location for inclusion in the CAMU Groundwater Performance Monitoring Program. The wellhead for monitoring well MW-8R was replaced on April 24, 2007 due to deterioration.
- On April 24, 2007 the area surrounding well B291 was cleared of vegetation, and the existing damaged flush-mounted well cover was removed and replaced with a stick-up-type protective casing installed in a concrete base. The wellhead was vertically surveyed relative to well B402R, with the new reference elevation being calculated at 410.86. A new, lockable well plug was installed in the well opening.
- In an effort to avoid further well damage or loss prior to the December 2008 sampling event, all of the facility monitoring wells were painted, labeled and affixed with pole extensions and flagging. The wells were also fitted with new keyed alike locks. It was also noted that all the wells had old deteriorating polyethylene tubing dedicated to each well which is not a standard field sampling practice. All of the old tubing was removed from the wells and disposed of. New tubing for each well is now utilized during each round of sampling and then removed and disposed of properly when sampling is completed.

All of the required CAMU wells were sampled in June 2012. Additionally, monitoring well B286 and surface water/ sediment monitoring locations SW-002A and SW-002B were sampled during the June 2012 monitoring event.

2.2 Groundwater, Surface Water, and Sediment Monitoring Work

This section describes the field and laboratory procedures that were followed during this monitoring event. Table 1 provides a summary of the sampling frequency and the analytical parameters for each monitoring well for the CAMU groundwater monitoring program that began in 1998.

(a) Groundwater Contour Map

Prior to the sampling of the groundwater monitoring wells, the static water level of each monitoring well was measured. This work was performed using an electronic water level sensor capable of measuring to an accuracy of ± 0.01 foot. The water level probe was decontaminated between wells by washing in an Alconox/water solution and rinsing with distilled water.

Figure 1 presents a groundwater contour map that reflects the water level data, which is set forth in Table 2. Table 2 also includes water level data for the nine (9) prior groundwater sampling events.

The contour map indicates that the general groundwater flow direction at the Site is to the northeast toward the South Branch of Ley Creek. This finding is consistent with historical groundwater contour data.

(b) Groundwater, Surface Water, and Sediment Sampling & Analysis

Each of the monitoring wells were redeveloped and purged prior to sampling. Water surface elevations and field parameters were measured after purging and immediately prior to sample collection.

Redevelopment of the wells was performed with a disposable hand bailer. Purging and sampling of the monitoring wells was conducted using a low-flow peristaltic pump with new non-dedicated tubing at each location. Purging was performed until a minimum of three (3) well volumes were removed or until the well went dry. Groundwater samples were collected after purging and sufficient recharge occurred, also utilizing the low-flow peristaltic pump.

Surface water and sediment grab samples were collected from two sampling locations (SW-002A and SW-002B) in the small section of open drainage swale which runs along the CSX railroad track directly east and downgradient from SPDES Outfall 002.

Collected samples were placed into clean coolers and kept on ice at 4°C until delivery to Columbia Analytical Services, Inc.

Appendix A includes the field sampling data sheets and chain of custody records associated with this round of sampling.

(c) **Monitoring Results**

Table 3 provides an historical summary of the analytical groundwater data for this project, including the results of the June 2012 groundwater monitoring. Table 4 provides a summary of the surface water and sediment analytical data for the June 2012 monitoring event. Appendix B contains the analytical laboratory reports prepared by Columbia Analytical Services, Inc. (NYSDOH Laboratory I.D. # 10145). Data are highlighted, as appropriate, to indicate detected concentrations that exceed the following NYSDEC Class GA Groundwater Standards:

<u>Parameter</u>	<u>Class GA Standard</u>	<u>Class D Surface Water Standard⁽¹⁾</u>	<u>Part 375 Restricted Soil Use Cleanup Objectives (Industrial)</u>
pH	6.5 – 8.5 Std. Units	6.0-9.5 Std. Units	N/A
Lead	0.025 mg/l	0.025 mg/l ⁽²⁾	3900 ppm
Arsenic	0.025 mg/l	0.025 mg/l ⁽²⁾	16 ppm
Aroclor 1016	0.09 ug/l*	0.00012 ug/l*	25 ppm
Aroclor 1221	0.09 ug/l*	0.00012 ug/l*	25 ppm
Aroclor 1232	0.09 ug/l*	0.00012 ug/l*	25 ppm
Aroclor 1242	0.09 ug/l*	0.00012 ug/l*	25 ppm
Aroclor 1248	0.09 ug/l*	0.00012 ug/l*	25 ppm
Aroclor 1254	0.09 ug/l*	0.00012 ug/l*	25 ppm
Aroclor 1260	0.09 ug/l*	0.00012 ug/l*	25 ppm
Aroclor 1262	0.09 ug/l*	0.00012 ug/l*	25 ppm
Aroclor 1268	0.09 ug/l*	0.00012 ug/l*	25 ppm

Notes: ⁽¹⁾In the absence of hardness data, the Class GA standard has been conservatively applied

⁽²⁾Dissolved Form

*Limit applies to sum of all Aroclors

The results of the June 2012 sampling event indicate that the groundwater quality conditions at the CAMU have remained generally consistent since the last monitoring event and appear to correspond with historical groundwater quality data. The following sections summarize the analytical data collected during this sampling event:

pH – The Class GA standard for pH was not exceeded within any monitoring location.

PCBs – During the June 2012 monitoring event MW-8R exceeded the NYSDEC Class GA groundwater standard for Aroclor 1254, and was re-sampled on August 9, 2012 to confirm the detection of Aroclor 1254. The MW-8R re-sample results post well development, exhibited substantially reduced Aroclor concentration values.

The low level Aroclor 1260 re-analysis result was qualified with a “P” indicating that there was a difference of greater than 40% between the two gas chromatograph columns utilized. The PCB analytical results were highly variable between monitoring events, and are also shown to be

variable between analytical runs when the same sample is being utilized. It should be noted that there were no PCB's detected in well B286 and that both monitoring wells are located upgradient of the CAMU.

Low level Aroclor detections (i.e., <1 ppm) were observed within the drainage swale soil samples at both SW-002A and SW-002B. The reported concentration values were below Part 375 Cleanup Objectives (Industrial). As a voluntary maintenance effort a remedial contractor was retained to remove any residual contaminated soil from the drainage swale.

There were no other PCB detections reported for the June 2012 monitoring event.

Specific Conductivity – Monitoring location 8R exhibited an elevated specific conductivity result during the 2012 monitoring event. No Class GA standard for specific conductivity is currently established. Salts used in the processes at the site are stockpiled in a storage bay immediately adjacent to MW-8R. It is suspected that surface contamination is likely infiltrating the flush mounted well resulting in elevated conductivity readings.

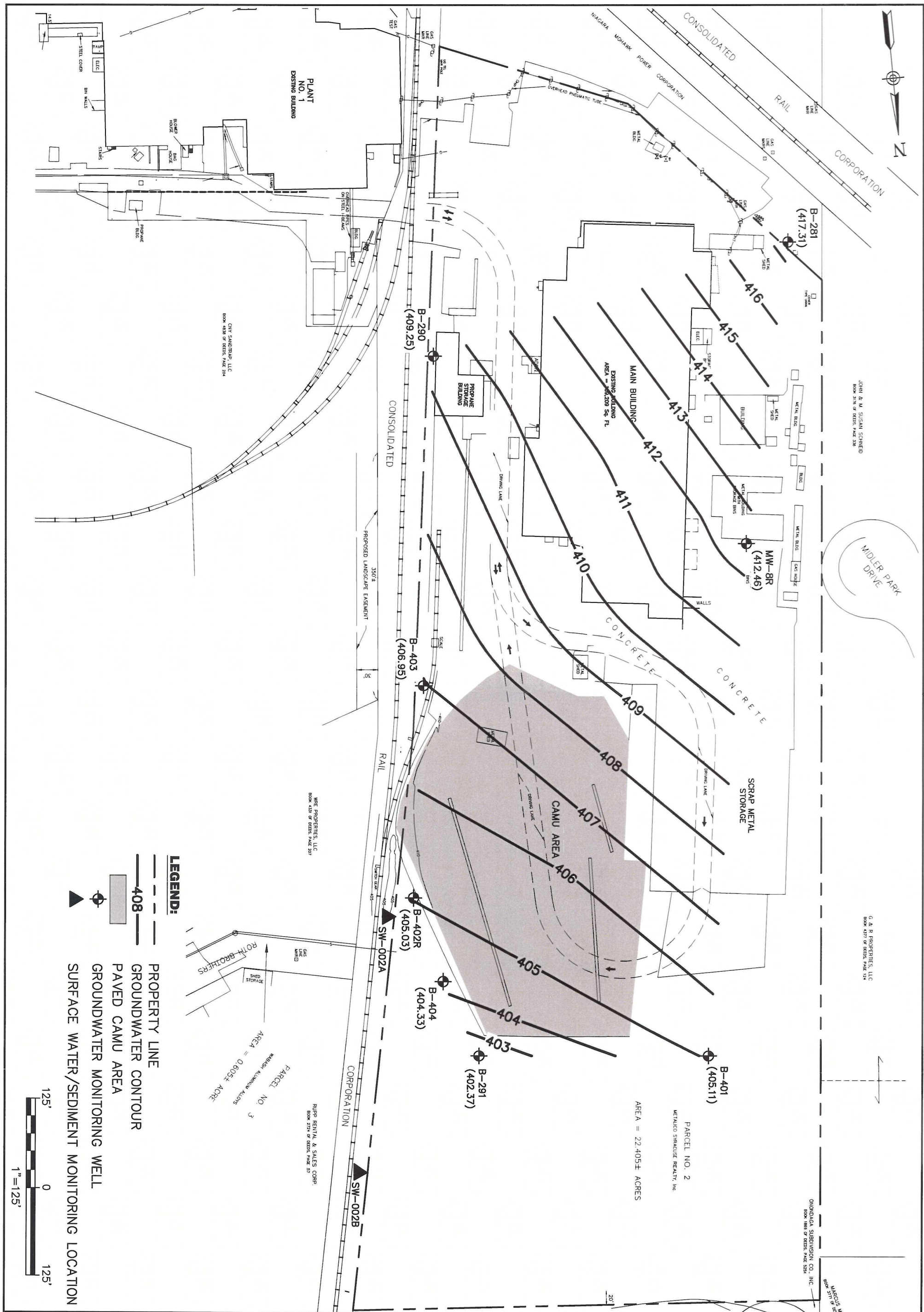
Total & Dissolved Lead – Monitoring well B-290 exhibited a total lead concentration of 0.305 mg/L for the June 2012 monitoring event. This value exceeds the Class GA standard of 0.025 mg/L. Dissolved lead was not detected (<0.050 mg/L) at location B-290. Historical results suggest increased total metals concentrations are linked to elevated turbidity levels. The absence of dissolved lead at this location suggests the total lead levels observed are likely related to the silts and sediments entering through the screened portion of the well during sampling and are not mobile in the groundwater. B-290 was re-sampled on August 9, 2012 for confirmatory results and total lead was not detected.

It is suspected that the June result was likely associated with the aggressive well redevelopment effort performed just prior to sampling. There were no other lead detections reported for the 2012 monitoring event.

Total & Dissolved Arsenic – Monitoring location B-290 also exhibited a total arsenic concentration of 0.036 mg/l for the June 2012 monitoring event. This value exceeded the Class GA standard of 0.025 mg/l. Dissolved arsenic was not detected. This again suggests the total arsenic levels observed are related to the sediments entering through the screened portion of the monitoring well during purging and sample collection and are not mobile in the groundwater. As previously reported, B-290 was re-sampled for confirmatory results. The B-290 re-sample result for total arsenic was below the Class GA groundwater standard.

Total Arsenic was detected at concentrations below the groundwater standard at locations MW-8R and B-402R. These results are consistent with the limited historical data for these two locations.

Figures



METALICO ALUMINUM RECOVERY, INC.
FACILITY NO. 7102372

JUNE, 2012
GROUNDWATER CONTOUR MAP

EAST SYRACUSE

FOIL 209315
ONONDAGA COUNTY, NEW YORK

**Barton
& Loguidice, P.C.**

Date
JUNE, 2012

Scale

Figure Number

Project Number
1206.002

Tables

Table 1
CAMU Monitoring Schedule

Sampling Frequency	Parameter	Analytical Method	MDL	Well Location
Annual (June)	Arsenic (Total and Dissolved)	EPA Method 6010	3 ug/L	B281
	Lead (Total and Dissolved)		5 ug/L	B290
	PCB's	EPA Method 8082	0.050 ug/L	B291
				B401
				B402R
				B403
				B404
				MW-8R
				SW-002A
				SW-002A Sed
				SW-002B
				SW-002B Sed

Table 2
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Groundwater Performance Monitoring
Groundwater Elevation Summary Table
Page 1 of 2

Monitoring Well	B107		B108		B281		B290		B291	
WELL DEPTH (FT): REFERENCE ELEVATION:	- 410.61		9.85 411.80		13.03 423.39		10.26 414.61		12.54 410.86	
DATE	ELEVATION	SWL	ELEVATION	SWL	ELEVATION	SWL	ELEVATION	SWL	ELEVATION	SWL
18-Jun-12	-	-	-	-	417.31	6.08	409.25	5.36	402.37	8.49
22-Jun-11	-	-	-	-	419.27	4.12	409.71	4.90	403.35	7.51
29-Dec-10	NS	NS	409.76	2.04	418.82	4.57	409.63	4.98	404.14	6.72
23-Jun-10	409.55	1.06	409.77	2.03	419.53	3.86	409.69	4.92	404.81	6.05
16-Dec-09	NS	NS	NS	NS	419.28	4.11	409.71	4.90	403.95	6.91
29-Jun-09	409.00	1.61	409.95	1.85	413.75	9.64	409.50	5.11	403.53	7.33
18-Dec-08	NS	NS	NS	NS	419.31	4.08	409.63	4.98	404.43	6.43
05-Jun-08	408.93	1.68	409.01	2.79	417.18	6.21	404.35	10.26	403.72	7.14
31-Dec-07	NS	NS	408.95	2.85	416.66	6.73	409.77	4.84	404.73	6.13
29-Jun-07	408.95	1.66	408.95	2.85	416.44	6.95	410.38	4.23	401.96	8.90
19-Dec-06	NS	NS	NS	NS	420.25	3.14	409.57	5.04	404.43	6.43

Table 2
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Groundwater Performance Monitoring
Groundwater Elevation Summary Table
 Page 2 of 2

Monitoring Well	B401		B402R		B403		B404		8R	
WELL DEPTH (FT): REFERENCE ELEVATION:	13.03 413.54		12.24 409.44		11.26 411.05		16.14 410.77		10.00 415.30	
DATE	ELEVATION	SWL	ELEVATION	SWL	ELEVATION	SWL	ELEVATION	SWL	ELEVATION	SWL
18-Jun-12	405.11	8.43	405.03	4.41	406.95	4.10	404.33	6.44	412.46	2.84
22-Jun-11	405.50	8.04	405.73	3.71	407.94	3.11	406.08	4.69	412.54	2.76
29-Dec-10	407.42	6.12	406.64	2.80	407.98	3.07	406.73	4.04	412.18	3.12
23-Jun-10	407.79	5.75	406.62	2.82	408.23	2.82	407.84	2.93	412.64	2.66
16-Dec-09	408.48	5.06	406.64	2.80	408.11	2.94	407.56	3.21	411.92	3.38
29-Jun-09	406.84	6.70	406.46	2.98	408.05	3.00	406.66	4.11	412.72	2.58
18-Dec-08	408.39	5.15	406.81	2.63	407.91	3.14	406.92	3.85	412.59	2.71
05-Jun-08	404.62	8.92	405.56	3.88	407.42	3.63	405.42	5.35	411.88	3.42
31-Dec-07	408.33	5.21	406.97	2.47	408.08	2.97	407.27	3.50	412.45	2.85
29-Jun-07	404.83	8.71	405.32	4.12	407.20	3.85	404.27	6.50	411.93	3.37
19-Dec-06	407.30	6.24	405.47	3.97	408.01	3.04	406.76	4.01	412.00	3.30

Table 3
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Groundwater Performance Monitoring
Historical Laboratory Analytical Summary Table (Monitoring Well 8R)

		Total Arsenic	Dissolved Arsenic	Total Lead	Dissolved Lead	pH	Specific Conductivity	Aroclors								
								1016	1221	1232	1242	1248	1254	1260	1262	1268
Units		mg/L	mg/L	mg/L	mg/L	s.u.	us/cm	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
Class GA Standard		0.025	0.025	0.025	0.025	6.5-8.5	NA	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	
8R	Sep-02	-	-	0.004	0.001	9.21	933	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-02	-	-	0.002	-	9.62	567	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	2.60	< 0.05	-	-
	Mar-03	-	-	0.001	0.002	8.82	551	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.30	< 0.05	-	-
	Jun-03	-	-	0.002	0.002	8.59	726	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.25	< 0.05	-	-
	Sep-03	-	-	0.002	< 0.001	8.05	441	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	5.90	< 0.05	-	-
	Dec-03	-	-	0.004	0.002	8.37	576	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	3.60	< 0.05	-	-
	Mar-04	-	-	0.002	< 0.001	7.91	531	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	2.60	< 0.05	-	-
	Jun-04	-	-	0.002	< 0.001	8.06	332	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.32	< 0.05	-	-
	Sep-04	-	-	< 0.001	0.002	7.14	811	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	-	-
	Dec-04	-	-	0.009	< 0.001	7.36	996	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.98	< 0.05	-	-
	Mar-05	-	-	< 0.001	< 0.001	7.76	1158	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	1.20	< 0.05	-	-
	Jun-05	-	-	0.002	0.001	8.00	402	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	3.30	< 0.05	-	-
	Dec-05	-	-	0.001	0.001	7.67	893	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.63	< 0.05	-	-
	Jun-06	-	-	0.004	< 0.003	8.39	239	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.92	< 0.05	-	-
	Dec-06	-	-	0.210	< 0.003	7.46	549	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	9.30	< 0.05	-	-
	Jun-07	-	-	0.006	< 0.003	8.48	449	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	3.90	< 0.05	-	-
	Dec-07	-	-	< 0.003	< 0.003	8.47	1113	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	0.70	< 1.00	-	-
	Jun-08	-	-	0.210	< 0.003	7.81	1459	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	6.40	< 0.05	-	-
	Dec-08	-	-	< 0.003	< 0.003	7.68	2668	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-09	-	-	< 0.003	< 0.003	7.30	780	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	16.00	< 1.00	< 1.00	< 1.00
	Dec-09	-	-	< 0.003	< 0.003	7.10	1010	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	6.90	< 1.10	< 1.10	< 1.10
	Jun-10	-	-	< 0.003	< 0.003	7.40	22	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	9.20	< 2.00	-	-
	Dec-10	-	-	< 0.003	< 0.003	7.40	11200	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1.70 J	< 1.00	-	-
	Jun-11	0.013	0.013	< 0.003	< 0.003	7.10	10400	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	23.00	< 10.00	< 10.00	< 10.00
	Jun-12	0.016	0.012	< 0.050	< 0.050	6.90	15300	-	-	-	< 0.47	< 0.47	15.00	< 0.47	-	-
	Aug-12	0.016	< 0.010	< 0.050	< 0.050	6.90	12500	< 0.05	< 0.05	< 0.05	< 0.47	0.80	1.30	0.18 P	-	-

Metalico Aluminum Recovery, Inc.; Syracuse Facility

Table 3

ROTH BROS. SMELTING CORP.

Groundwater Performance Monitoring

Historical Laboratory Analytical Summary Table (Monitoring Well B281)

	Total Arsenic	Dissolved Arsenic	Total Lead	Dissolved Lead	pH	Specific Conductivity	Aroclors								
							1016	1221	1232	1242	1248	1254	1260	1262	1268
Units	mg/L	mg/L	mg/L	mg/L	s.u.	us/cm	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Class GA Standard	0.025	0.025	0.025	0.025	6.5-8.5	NA	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
B281	Jun-98	-	-	< 0.002	< 0.002	6.53	2690	-	-	-	-	-	-	-	-
	1999	-	-	< 0.010	< 0.010	7.47	3120	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-
	Jun-00	-	-	< 0.001	< 0.001	6.72	2630	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-
	Sep-00	-	-	< 0.001	< 0.001	7.02	2560	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-
	Dec-00	-	-	< 0.001	< 0.001	7.28	1956	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-
	Mar-01	-	-	< 0.001	< 0.001	7.24	2020	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-
	Jun-02	0.037	0.017	< 0.001	< 0.001	-	-	-	-	-	-	-	-	-	-
	Sep-02	0.023	< 0.010	< 0.001	< 0.001	6.86	3000	-	-	-	-	-	-	-	-
	Dec-02	-	-	< 0.001	-	7.03	2060	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-
	Mar-03	-	-	< 0.001	< 0.001	7.27	1063	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-
	Jun-03	-	-	0.001	< 0.001	7.32	3010	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-
	Sep-03	-	-	< 0.010	< 0.001	7.29	3170	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-
	Dec-03	0.017	< 0.001	0.002	0.001	7.27	2170	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-
	Mar-04	0.031	0.017	< 0.001	< 0.001	7.18	2230	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-
	Jun-04	-	-	< 0.001	0.001	7.47	2940	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-
	Sep-04	-	-	< 0.001	< 0.001	7.03	2990	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-
	Dec-04	-	-	0.004	< 0.001	7.39	1969	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-
	Mar-05	-	-	< 0.001	< 0.001	7.48	3000	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-
	Jun-05	0.016	0.011	< 0.001	< 0.001	7.33	2170	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-
	Dec-05	-	-	0.001	< 0.001	7.19	2430	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-
	Jun-06	-	-	0.010	< 0.003	7.46	2780	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-
	Dec-06	-	-	0.009	0.024	7.17	2430	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-
	Jun-07	0.028	< 0.010	< 0.003	< 0.003	7.32	778	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-
	Dec-07	0.064	< 0.010	< 0.003	< 0.003	8.71	321	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-
	Jun-08	0.050	< 0.010	< 0.003	< 0.003	8.04	249	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-
	Dec-08	-	-	< 0.003	< 0.003	7.10	2215	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-
	Jun-09	0.035	< 0.010	< 0.003	< 0.003	7.10	1700	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Dec-09	-	-	< 0.003	< 0.003	7.00	3900	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10
	Jun-10	0.014	0.005	< 0.003	< 0.003	7.20	> 20000	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-
	Dec-10	-	-	< 0.003	< 0.003	7.00	410	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-
	Jun-11	0.016	< 0.005	< 0.003	< 0.003	7.10	3600	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Jun-12	< 0.010	< 0.010	< 0.050	< 0.050	7.00	3700	-	-	-	< 0.047	< 0.047	< 0.047	< 0.047	-

Table 3
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Groundwater Performance Monitoring
Historical Laboratory Analytical Summary Table (Monitoring Well B290)

		Total Arsenic	Dissolved Arsenic	Total Lead	Dissolved Lead	pH	Specific Conductivity	Aroclors								
								1016	1221	1232	1242	1248	1254	1260	1262	1268
Units		mg/L	mg/L	mg/L	mg/L	s.u.	us/cm	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Class GA Standard		0.025	0.025	0.025	0.025	6.5-8.5	NA	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
B290	Jun-98	-	-	41.900	< 0.020	6.94	2180	-	-	-	-	-	-	-	-	-
	1999	-	-	< 0.010	0.720	7.24	2370	-	-	-	-	-	-	-	-	-
	Jun-00	-	-	0.045	< 0.001	6.87	2410	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-00	-	-	0.050	< 0.001	7.42	2120	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-00	-	-	0.092	< 0.001	7.01	1784	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-01	-	-	0.007	< 0.001	7.01	1693	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-02	-	-	0.048	< 0.001	-	-	-	-	-	-	-	-	-	-	-
	Sep-02	-	-	0.008	< 0.001	6.93	2130	-	-	-	-	-	-	-	-	-
	Dec-02	-	-	0.042	-	7.13	1707	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-03	-	-	0.002	< 0.001	7.38	1451	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-03	-	-	0.059	< 0.001	7.37	2420	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-03	-	-	0.021	< 0.001	7.17	2240	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-03	-	-	0.008	0.002	8.08	1322	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-04	-	-	< 0.001	< 0.001	7.49	1590	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-04	-	-	0.001	< 0.001	7.45	1711	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-04	-	-	0.008	< 0.001	7.24	2410	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-04	-	-	< 0.001	0.003	7.41	1822	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-05	-	-	0.013	< 0.001	7.52	2450	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-05	-	-	0.012	< 0.001	7.68	1663	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-05	-	-	0.002	< 0.001	7.17	2600	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-06	-	-	0.023	< 0.003	7.67	1676	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-06	-	-	0.006	< 0.003	7.26	2430	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-07	-	-	0.016	0.004	8.10	701	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-07	-	-	0.019	< 0.003	8.47	1431	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-08	-	-	0.020	< 0.003	8.27	234	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-08	-	-	0.015	< 0.003	7.74	1786	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-09	-	-	< 0.003	< 0.003	7.20	5400	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Dec-09	-	-	< 0.003	< 0.003	7.50	3600	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10
	Jun-10	-	-	< 0.012	< 0.003	7.10	2400	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Dec-10	-	-	0.065	< 0.003	7.30	3300	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-11	0.011	0.009	0.007	< 0.003	7.10	2300	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Jun-12	0.036	< 0.010	0.305	< 0.050	7.10	2900	-	-	-	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Aug-12	0.010	< 0.010	< 0.050	< 0.050	6.90	3500	-	-	-	-	-	-	-	-	-

Table 3
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Groundwater Performance Monitoring
Historical Laboratory Analytical Summary Table (Monitoring Well B291)

		Total Arsenic	Dissolved Arsenic	Total Lead	Dissolved Lead	pH	Specific Conductivity	Aroclors								
								1016	1221	1232	1242	1248	1254	1260	1262	1268
Units		mg/L	mg/L	mg/L	mg/L	s.u.	us/cm	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Class GA Standard		0.025	0.025	0.025	0.025	6.5-8.5	NA	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
B291	Sep-00	-	-	0.007	0.001	7.31	877	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-00	-	-	0.001	0.001	7.24	848	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-01	-	-	0.003	< 0.001	7.01	752	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-02	0.012	< 0.010	< 0.001	< 0.001	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-02	< 0.010	< 0.010	0.002	< 0.001	7.4	1134	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-03	-	-	0.002	< 0.001	7.37	800	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-03	-	-	0.003	0.001	7.38	1213	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-03	-	-	< 0.001	< 0.001	7.21	898	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-03	0.012	< 0.010	0.008	0.002	8.81	804	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-04	0.020	0.016	0.002	< 0.001	7.31	860	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-04	-	-	0.001	< 0.001	7.53	1167	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-04	-	-	0.003	< 0.001	7.21	746	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-04	-	-	0.001	0.001	7.10	958	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-05	-	-	< 0.001	< 0.001	7.18	996	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-05	< 0.010	< 0.010	0.002	0.001	7.36	813	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-05	-	-	0.002	< 0.001	7.23	971	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-06	-	-	< 0.003	< 0.003	7.09	856	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-06	-	-	< 0.003	< 0.003	6.87	968	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-07	< 0.010	< 0.010	0.010	0.005	7.58	478	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-07	-	-	< 0.003	< 0.003	8.62	650	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-08	< 0.010	< 0.010	< 0.003	< 0.003	8.21	876	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-08	-	-	< 0.003	< 0.003	8.09	592	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-09	< 0.010	< 0.010	< 0.003	< 0.003	6.90	950	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Dec-09	-	-	< 0.003	< 0.003	7.30	1130	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10
	Jun-10	< 0.010	< 0.005	< 0.003	< 0.003	7.00	750	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Dec-10	-	-	< 0.003	< 0.003	7.10	900	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-11	< 0.005	< 0.005	< 0.003	< 0.003	7.10	890	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Jun-12	< 0.010	< 0.010	< 0.050	< 0.050	7.00	900	-	-	-	< 0.047	< 0.047	< 0.047	< 0.047	-	-

Table 3
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Groundwater Performance Monitoring
Historical Laboratory Analytical Summary Table (Monitoring Well B401)

		Total Arsenic	Dissolved Arsenic	Total Lead	Dissolved Lead	pH	Specific Conductivity	Aroclors									
								1016	1221	1232	1242	1248	1254	1260	1262	1268	
Units		mg/L	mg/L	mg/L	mg/L	s.u.	us/cm	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
Class GA Standard		0.025	0.025	0.025	0.025	6.5-8.5	NA	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	
B401	Jun-98	-	-	0.012	< 0.002	-	-	-	-	-	-	-	-	-	-	-	
	1999	-	-	0.061	< 0.010	6.69	1510	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-	
	Jun-00	-	-	0.044	0.003	6.78	1275	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-	
	Sep-00	-	-	0.350	0.002	7.29	1159	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-	
	Dec-00	-	-	0.059	0.007	7.44	1180	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-	
	Mar-01	-	-	0.033	< 0.001	7.26	810	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-	
	Jun-02	-	-	0.210	< 0.001	-	-	-	-	-	-	-	-	-	-	-	
	Sep-02	-	-	0.060	0.002	7.48	644	-	-	-	-	-	-	-	-	-	
	Dec-02	-	-	0.013	-	7.27	925	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-03	-	-	0.024	< 0.001	7.32	781	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-	
	Jun-03	-	-	0.010	0.003	7.66	1109	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-	
	Sep-03	-	-	0.010	0.001	7.15	1126	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-	
	Dec-03	-	-	0.021	0.002	8.37	791	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-04	-	-	0.004	< 0.001	7.48	785	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-04	-	-	0.031	< 0.001	7.49	1053	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-04	-	-	0.005	< 0.001	7.11	1030	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-04	-	-	0.002	< 0.001	7.21	937	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-05	-	-	0.003	< 0.001	7.36	1038	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-05	-	-	0.003	0.001	7.83	814	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-05	-	-	0.007	< 0.001	7.18	1066	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-06	-	-	0.042	< 0.003	7.46	986	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-06	-	-	0.011	< 0.003	6.39	502	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-07	-	-	0.008	0.003	7.46	441	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-07	-	-	< 0.003	< 0.003	8.32	691	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-08	-	-	0.017	< 0.003	8.08	930	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-08	-	-	< 0.003	< 0.003	7.90	693	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-09	-	-	< 0.003	< 0.003	6.90	1110	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Dec-09	-	-	< 0.003	< 0.003	7.30	1520	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10
	Jun-10	-	-	< 0.003	< 0.003	6.90	1100	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Dec-10	-	-	< 0.003	< 0.003	7.10	1250	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-11	< 0.005	< 0.005	< 0.003	< 0.003	6.90	1160	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Jun-12	< 0.010	< 0.010	< 0.050	< 0.050	7.00	1110	-	-	-	< 0.047	< 0.047	< 0.047	< 0.047	-	-	-

Table 3
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Groundwater Performance Monitoring
Historical Laboratory Analytical Summary Table (Monitoring Well B402R)

		Total Arsenic	Dissolved Arsenic	Total Lead	Dissolved Lead	pH	Specific Conductivity	Aroclors									
								1016	1221	1232	1242	1248	1254	1260	1262	1268	
Units		mg/L	mg/L	mg/L	mg/L	s.u.	us/cm	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
Class GA Standard		0.025	0.025	0.025	0.025	6.5-8.5	NA	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	
B402R	Dec-05	-	-	0.260	0.001	7.73	3060	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	1.20	< 0.05	-	-	
	Jun-06	-	-	0.003	< 0.003	8.37	2960	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-	
	Dec-06	-	-	0.048	< 0.003	8.61	2680	0.10	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-	
	Jun-07	-	-	0.150	0.010	8.11	1658	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-	
	Dec-07	-	-	0.042	< 0.003	8.13	1470	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-	
	Jun-08	-	-	0.033	< 0.003	7.33	273	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-08	-	-	0.149	< 0.003	8.27	1893	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-09	-	-	< 0.003	< 0.003	7.90	3000	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Dec-09	-	-	0.030	< 0.003	8.20	2280	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10
	Jun-10	-	-	0.028	< 0.003	8.30	> 20000	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Dec-10	-	-	0.370	< 0.003	8.40	3200	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-11	0.034	0.016	0.235	< 0.003	8.20	2800	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Jun-12	0.015	0.014	< 0.050	< 0.050	7.90	2700	-	-	-	< 0.047	< 0.047	< 0.047	< 0.047	-	-	-	
Aug-12	0.012	< 0.010	< 0.050	< 0.050	7.60	2400	-	-	-	-	-	-	-	-	-	-	

Table 3
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Groundwater Performance Monitoring
Historical Laboratory Analytical Summary Table (Monitoring Well B403)

		Total Arsenic	Dissolved Arsenic	Total Lead	Dissolved Lead	pH	Specific Conductivity	Aroclors									
								1016	1221	1232	1242	1248	1254	1260	1262	1268	
Units		mg/L	mg/L	mg/L	mg/L	s.u.	us/cm	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
Class GA Standard		0.025	0.025	0.025	0.025	6.5-8.5	NA	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	
B403	Jun-98	-	-	0.284	< 0.002	7.21	1280	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-	
	1999	-	-	0.240	0.010	7.36	710	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.17	< 0.01	-	-	
	Jun-00	-	-	0.010	0.004	7.35	402	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-	
	Sep-00	-	-	0.007	0.003	8.41	520	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-	
	Dec-00	-	-	0.002	0.002	8.12	970	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-	
	Mar-01	-	-	0.004	0.003	7.54	415	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-02	-	-	< 0.001	< 0.001	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-02	-	-	0.005	< 0.001	7.11	456	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-02	-	-	0.003	-	7.52	201	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-03	-	-	0.002	< 0.001	7.97	200	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-03	-	-	0.002	< 0.001	8.03	536	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-03	-	-	0.002	< 0.001	7.61	351	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-03	-	-	0.004	0.001	8.41	235	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-04	-	-	0.003	0.002	7.44	296	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-04	-	-	0.001	0.002	7.65	681	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-04	-	-	0.001	< 0.001	7.23	662	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-04	-	-	< 0.001	< 0.001	7.52	613	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-05	-	-	< 0.001	< 0.001	7.82	1156	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-05	-	-	0.003	0.002	7.64	1135	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-05	-	-	0.002	0.001	7.18	1372	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-06	-	-	< 0.003	< 0.003	7.36	1479	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-06	-	-	< 0.003	< 0.003	7.85	1719	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-07	-	-	< 0.003	0.005	8.41	822	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-07	-	-	< 0.003	< 0.003	8.61	913	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-08	-	-	< 0.003	< 0.003	8.25	1121	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-08	-	-	< 0.003	< 0.003	7.81	771	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-09	-	-	< 0.003	< 0.003	7.40	1160	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Dec-09	-	-	< 0.003	< 0.003	7.20	1280	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10
	Jun-10	-	-	< 0.003	< 0.003	7.30	1020	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Dec-10	-	-	< 0.003	< 0.003	6.31	1080	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-11	< 0.005	< 0.005	< 0.003	< 0.003	6.90	1060	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Jun-12	< 0.010	< 0.010	< 0.050	< 0.050	7.00	960	-	-	-	< 0.047	< 0.047	< 0.047	< 0.047	-	-	-

Table 3
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Groundwater Performance Monitoring
Historical Laboratory Analytical Summary Table (Monitoring Well B404)

		Total Arsenic	Dissolved Arsenic	Total Lead	Dissolved Lead	pH	Specific Conductivity	Aroclors								
		mg/L	mg/L	mg/L	mg/L	s.u.	us/cm	1016	1221	1232	1242	1248	1254	1260	1262	1268
Units		mg/L	mg/L	mg/L	mg/L	s.u.	us/cm	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Class GA Standard		0.025	0.025	0.025	0.025	6.5-8.5	NA	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
B404	Jun-98	-	-	0.007	0.003	10.55	2380	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	1999	-	-	< 0.010	< 0.010	6.72	1740	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.17	< 0.01	-	-
	Jun-00	-	-	0.004	0.002	6.97	1573	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-00	-	-	0.002	0.002	7.32	1114	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-00	-	-	0.003	< 0.001	7.47	589	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-01	-	-	0.003	0.003	7.54	610	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-02	-	-	< 0.001	< 0.001	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-02	-	-	0.003	< 0.001	7.09	731	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-02	-	-	0.003	-	7.33	374	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-03	-	-	< 0.001	< 0.001	7.61	272	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-03	-	-	0.002	< 0.001	7.63	544	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-03	-	-	0.001	< 0.001	7.26	526	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-03	-	-	0.004	0.002	9.83	297	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-04	-	-	0.001	0.002	8.14	286	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-04	-	-	0.001	< 0.001	8.55	516	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-04	-	-	0.002	0.001	7.43	559	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-04	-	-	< 0.001	< 0.001	7.66	348	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-05	-	-	< 0.001	< 0.001	7.28	512	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-05	-	-	0.003	< 0.001	7.56	367	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-05	-	-	< 0.001	< 0.001	7.14	512	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-06	-	-	< 0.003	< 0.003	7.46	523	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-06	-	-	< 0.003	< 0.003	6.89	474	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-07	-	-	0.006	0.004	7.24	365	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-07	-	-	< 0.003	< 0.003	7.24	365	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-08	-	-	0.009	< 0.003	8.07	618	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-08	-	-	< 0.003	< 0.003	7.08	539	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-09	-	-	< 0.003	< 0.003	6.90	600	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
	Dec-09	-	-	< 0.003	< 0.003	7.30	610	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10
	Jun-10	-	-	< 0.003	< 0.003	6.90	350	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Dec-10	-	-	< 0.003	< 0.003	7.20	550	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-11	< 0.005	< 0.005	< 0.003	< 0.003	6.80	840	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Jun-12	< 0.010	< 0.010	< 0.050	< 0.050	7.20	830	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-

Table 4
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Surface Water / Sediment Performance Monitoring
Historical Laboratory Analytical Summary Table (SW-002A)

Surface Water		Total Arsenic	Dissolved Arsenic	Total Lead	Dissolved Lead	pH	Specific Conductivity	Aroclors							
		mg/L	mg/L	mg/L	mg/L	s.u.	us/cm	1016	1221	1232	1242	1248	1254	1260	Sum Total
Units		mg/L	mg/L	mg/L	mg/L	s.u.	us/cm	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Part 703 Class D Surface Water Standard		0.025 ⁽¹⁾	0.025 ⁽¹⁾	0.025 ⁽¹⁾	0.025 ⁽¹⁾	6.0-9.5	-	0.00012 ⁽²⁾	0.00012 ⁽²⁾	0.00012 ⁽²⁾	0.00012 ⁽²⁾	0.00012 ⁽²⁾	0.00012 ⁽²⁾	0.00012 ⁽²⁾	0.00012
SW-002A	Jun-11	< 0.005	< 0.005	0.003	0.004	8.10	3400	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	0.0
	Jun-12	< 0.010	-	< 0.050	-	7.90	3700	-	-	-	< 0.047	< 0.047	< 0.047	< 0.047	0.0

Note: (1) = Conservative Class GA groundwater standard applied due to absence of hardness data
(2) = Standard refers to the sum of all Aroclors

Table 4
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Surface Water / Sediment Performance Monitoring
Historical Laboratory Analytical Summary Table (SW-002A)

Sediment		Total Arsenic	Total Lead	pH	Aroclors							Sum Total
					1016	1221	1232	1242	1248	1254	1260	
Units		ppm	ppm	s.u.	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
6 NYCRR Part 375 Restricted Use Soil Cleanup Objectives (Industrial)		16	3900	-	25 ⁽¹⁾	25 ⁽¹⁾	25 ⁽¹⁾	25 ⁽¹⁾	25 ⁽¹⁾	25 ⁽¹⁾	25 ⁽¹⁾	25
SW-002A Sediment	Jun-11	< 19.6	878	8.51	< 6.50	< 6.50	< 6.50	< 6.50	< 6.50	< 6.50	< 6.50	0.00
	Jun-12	7.0	364	7.72	-	-	-	< 0.050	0.082	0.065	< 0.050	0.15
	Jul-12	17.9	925	-	< 0.058	< 0.120	< 0.058	< 0.058	0.150	0.130	0.053 J	0.33

Note: (1) = Standard refers to the sum of all Aroclors

Table 4
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Surface Water / Sediment Performance Monitoring
Historical Laboratory Analytical Summary Table (SW-002B)

Surface Water		Total Arsenic	Dissolved Arsenic	Total Lead	Dissolved Lead	pH	Specific Conductivity	Aroclors							
								1016	1221	1232	1242	1248	1254	1260	Sum Total
Units		µg/L	µg/L	µg/L	µg/L	s.u.	us/cm	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
Part 703 Class D Surface Water Standard		0.025 ⁽¹⁾	0.025 ⁽¹⁾	0.025 ⁽¹⁾	0.025 ⁽¹⁾	6.0-9.5	-	0.00012 ⁽²⁾	0.00012 ⁽²⁾	0.00012 ⁽²⁾	0.00012 ⁽²⁾	0.00012 ⁽²⁾	0.00012 ⁽²⁾	0.00012 ⁽²⁾	0.00012
SW-002B	Jun-11	< 0.005	< 0.005	0.008	< 0.003	7.80	3100	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	0.0
	Jun-12	< 0.010	-	< 0.050	-	7.90	3600	-	-	-	< 0.047	< 0.047	< 0.047	< 0.047	0.0

Note: (1) = Conservative Class GA groundwater standard applied due to absence of hardness data

(2) = Standard refers to the sum of all Aroclors

Table 4
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Surface Water / Sediment Performance Monitoring
Historical Laboratory Analytical Summary Table (SW-002B)

Sediment		Total Arsenic	Total Lead	pH	Aroclors							Sum Total
					1016	1221	1232	1242	1248	1254	1260	
Units		ppm	ppm	s.u.	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
6 NYCRR Part 375 Restricted Use Soil Cleanup Objectives (Industrial)		16	3900	-	25 ⁽¹⁾	25 ⁽¹⁾	25 ⁽¹⁾	25 ⁽¹⁾	25 ⁽¹⁾	25 ⁽¹⁾	25 ⁽¹⁾	25
SW-002B Sediment	Jun-11	< 18.4	415	8.59	< 6.10	< 6.10	< 6.10	< 6.10	< 6.10	< 6.10	< 6.10	0.000
	Jun-12	9.9	474	7.53	-	-	-	< 0.140	0.220	0.150	< 0.140	0.370
	Jul-12	6.6	285	-	< 0.062	< 0.130	< 0.062	< 0.062	0.120	0.091	0.044 J	0.255

Note: (1) = Standard refers to the sum of all Aroclors

Appendix A

**FIELD SAMPLING DATA SHEET**

Engineers • Environmental Scientists • Planners • Landscape Architects

SITE: Metalico - Thompson Road
CLIENT: Metalico Aluminum Recovery, Inc.
Weather Conditions: Overcast

SAMPLE LOCATION: B-281 (MS/MSD)
JOB #: 1206.002.007
Temperature: 70 F

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	6.08
Measured Well Depth (feet)*:	13.03
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	1.11

*depth from measuring point

Measuring Point: Riser
Measured by: DMJ/MPS
Date: 06/18/12
Time: 8:45

PURGING METHOD

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Calculated Volume Of Water To Be Purged (gallons): 3.33Actual Volume of Water Purged (gallons): 3.50Did well purge dry? No ☒ Yes ☐Did well recover? No ☐ Yes ☒

Recovery Time: _____

SAMPLING METHOD

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Sampled by: DMJ/MPS Time: 9:00 Date: 06/18/12

SAMPLING DATA**Sample Appearance**

Color: Grey Sediment: Fines
Odor: None

Field Measured Parameters

pH (Standard Units)	7.0	Sp. Conductivity (umhos/cm)	3700
Temperature (F)	58.3	Eh-Redox Potential (mV)	222
Turbidity (NTUs)	79.46	Dissolved Oxygen (mg/L)	-

Samples Collected (Number/Type):

Five bottles - T-Pb,As; D-Pb,As; PCBs (2)

Samples Delivered to: ALS Time: _____ Date: 06/19/12

COMMENTS:**MS/MSD**

Sample water turned cloudy - well went dry during bottle filling

**FIELD SAMPLING DATA SHEET**

Engineers • Environmental Scientists • Planners • Landscape Architects

SITE: Metalico - Thompson Road
CLIENT: Metalico Aluminum Recovery, Inc.
Weather Conditions: Overcast

SAMPLE LOCATION: B-290
JOB #: 1206.002.007
Temperature: 70 F

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	5.36
Measured Well Depth (feet)*:	10.26
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	0.78

*depth from measuring point

Measuring Point: Riser
Measured by: DMJ/MPS
Date: 06/18/12
Time: 9:40

PURGING METHOD

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Calculated Volume Of Water To Be Purged (gallons): 2.34Actual Volume of Water Purged (gallons): 2.00

Did well purge dry? No ☐ Yes ☒
Did well recover? No ☐ Yes ☒ Recovery Time: 5 mins

SAMPLING METHOD

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Sampled by: DMJ/MPS Time: 9:50 Date: 06/18/12

SAMPLING DATA**Sample Appearance**

Color: Hazy Sediment: None
Odor: None

Field Measured Parameters

pH (Standard Units)	7.1	Sp. Conductivity (umhos/cm)	2900
Temperature (F)	63.9	Eh-Redox Potential (mV)	-51
Turbidity (NTUs)	28.89	Dissolved Oxygen (mg/L)	-

Samples Collected (Number/Type):

Four bottles - T-Pb,As; D-Pb,As; PCBs (2)

Samples Delivered to: ALS Time: _____ Date: _____

COMMENTS:Orange purge water

**FIELD SAMPLING DATA SHEET**

Engineers • Environmental Scientists • Planners • Landscape Architects

SITE: Metalico - Thompson Road
CLIENT: Metalico Aluminum Recovery, Inc.
Weather Conditions: Partly Cloudy

SAMPLE LOCATION: B-290
JOB #: 1206.002.007
Temperature: 75 F

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	5.56
Measured Well Depth (feet)*:	10.26
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	0.75

*depth from measuring point

Measuring Point: Riser
Measured by: MPS
Date: 08/08/12
Time: 13:45

PURGING METHOD

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Calculated Volume Of Water To Be Purged (gallons): 1.5Actual Volume of Water Purged (gallons): 2.00Did well purge dry? No ☒ Yes ☐Did well recover? No ☐ Yes ☐Recovery Time: Overnight**SAMPLING METHOD**

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Sampled by: MPS Time: 8:50 Date: 08/09/12

SAMPLING DATA**Sample Appearance**

Color: None Sediment: None
Odor: Clear

Field Measured Parameters

pH (Standard Units)	6.9	Sp. Conductivity (umhos/cm)	3500
Temperature (F)	68.6	Eh-Redox Potential (mV)	23
Turbidity (NTUs)	14.76	Dissolved Oxygen (mg/L)	-

Samples Collected (Number/Type):T-Pb,As; D-Pb,As

Samples Delivered to: ALS courier Time: 15:56 Date: 08/09/12

COMMENTS:Orange purge water

**FIELD SAMPLING DATA SHEET**

Engineers • Environmental Scientists • Planners • Landscape Architects

SITE: Metalico - Thompson Road
CLIENT: Metalico Aluminum Recovery, Inc.
Weather Conditions: Overcast

SAMPLE LOCATION: B-291
JOB #: 1206.002.007
Temperature: 70 F

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	8.49
Measured Well Depth (feet)*:	12.54
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	0.65

*depth from measuring point

Measuring Point: Riser
Measured by: DMJ/MPS
Date: 06/18/12
Time: 10:25

PURGING METHOD

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Calculated Volume Of Water To Be Purged (gallons): 1.95Actual Volume of Water Purged (gallons): 2.00Did well purge dry? No ☒ Yes ☐Did well recover? No ☐ Yes ☒ Recovery Time: _____**SAMPLING METHOD**

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Sampled by: DMJ/MPS Time: 10:35 Date: 06/18/12**SAMPLING DATA****Sample Appearance**

Color: Grey-brown Sediment: Fines
Odor: None

Field Measured Parameters

pH (Standard Units)	7.0	Sp. Conductivity (umhos/cm)	900
Temperature (F)	55.2	Eh-Redox Potential (mV)	80
Turbidity (NTUs)	279.9	Dissolved Oxygen (mg/L)	-

Samples Collected (Number/Type):

Four bottles - T-Pb,As; D-Pb,As; PCBs (2)

Samples Delivered to: _____ Time: _____ Date: _____

COMMENTS:

**FIELD SAMPLING DATA SHEET**

Engineers • Environmental Scientists • Planners • Landscape Architects

SITE: Metalico - Thompson Road
CLIENT: Metalico Aluminum Recovery, Inc.
Weather Conditions: Overcast

SAMPLE LOCATION: B-401
JOB #: 1206.002.007
Temperature: 70 F

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	8.43
Measured Well Depth (feet)*:	13.03
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	0.74

*depth from measuring point

Measuring Point: Riser
Measured by: DMJ/MPS
Date: 06/18/12
Time: 10:08

PURGING METHOD

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Calculated Volume Of Water To Be Purged (gallons): 2.22Actual Volume of Water Purged (gallons): 1.00Did well purge dry? No ☐ Yes ☒Did well recover? No ☐ Yes ☒Recovery Time: 15 mins**SAMPLING METHOD**

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Sampled by: DMJ/MPS Time: 10:20 Date: 06/18/12

SAMPLING DATA*Sample Appearance*

Color: Clear Sediment: None
Odor: None

Field Measured Parameters

pH (Standard Units)	7.0	Sp. Conductivity (umhos/cm)	1110
Temperature (F)	62.1	Eh-Redox Potential (mV)	-35
Turbidity (NTUs)	1.69	Dissolved Oxygen (mg/L)	-

Samples Collected (Number/Type):

Four bottles - T-Pb,As; D-Pb,As; PCBs (2)

Samples Delivered to: _____ Time: _____ Date: _____

COMMENTS:

**FIELD SAMPLING DATA SHEET**

Engineers • Environmental Scientists • Planners • Landscape Architects

SITE: Metalico - Thompson Road
CLIENT: Metalico Aluminum Recovery, Inc.
Weather Conditions: Partly Cloudy

SAMPLE LOCATION: B-402R
JOB #: 1206.002.007
Temperature: 75 F

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	4.41
Measured Well Depth (feet)*:	12.24
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	0.81

*depth from measuring point

Measuring Point: Riser
Measured by: DMJ/MPS
Date: 06/18/12
Time: 11:25

PURGING METHOD

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Calculated Volume Of Water To Be Purged (gallons): 2.43Actual Volume of Water Purged (gallons): 2.50

Did well purge dry? No ☒ Yes ☐
Did well recover? No ☐ Yes ☒ Recovery Time: 5 mins

SAMPLING METHOD

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Sampled by: DMJ/MPS Time: 11:37 Date: 06/18/12

SAMPLING DATA**Sample Appearance**

Color: Yellow-grey Sediment: None
Odor: Septic

Field Measured Parameters

pH (Standard Units)	7.9	Sp. Conductivity (umhos/cm)	2700
Temperature (F)	61.8	Eh-Redox Potential (mV)	-77
Turbidity (NTUs)	131.3	Dissolved Oxygen (mg/L)	-

Samples Collected (Number/Type):

Four bottles - T-Pb,As; D-Pb,As; PCBs (2)

Samples Delivered to: _____ Time: _____ Date: _____

COMMENTS:

**FIELD SAMPLING DATA SHEET**

Engineers • Environmental Scientists • Planners • Landscape Architects

SITE: Metalico - Thompson Road
CLIENT: Metalico Aluminum Recovery, Inc.
Weather Conditions: Partly Cloudy

SAMPLE LOCATION: B-402R
JOB #: 1206.002.007
Temperature: 75 F

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	5.94
Measured Well Depth (feet)*:	12.24
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	1

*depth from measuring point

Measuring Point: Riser
Measured by: MPS
Date: 08/08/12
Time: 14:15

PURGING METHOD

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Calculated Volume Of Water To Be Purged (gallons): 3Actual Volume of Water Purged (gallons): 2.00

Did well purge dry? No ☐ Yes ☒
Did well recover? No ☐ Yes ☐ Recovery Time: Overnight

SAMPLING METHOD

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Sampled by: MPS Time: 9:15 Date: 08/09/12

SAMPLING DATA**Sample Appearance**

Color: Slight Yellow Tint Sediment: None
Odor: None

Field Measured Parameters

pH (Standard Units)	7.6	Sp. Conductivity (umhos/cm)	2400
Temperature (F)	65.9	Eh-Redox Potential (mV)	148
Turbidity (NTUs)	30.39	Dissolved Oxygen (mg/L)	-

Samples Collected (Number/Type):

T-Pb,As; D-Pb,As

Samples Delivered to: ALS courier Time: 15:56 Date: 08/09/12

COMMENTS:

**FIELD SAMPLING DATA SHEET**

Engineers • Environmental Scientists • Planners • Landscape Architects

SITE: Metalico - Thompson Road
CLIENT: Metalico Aluminum Recovery, Inc.
Weather Conditions: Partly Cloudy

SAMPLE LOCATION: B-403
JOB #: 1206.002.007
Temperature: 75 F

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	4.10
Measured Well Depth (feet)*:	11.26
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	1.15

*depth from measuring point

Measuring Point: Riser
Measured by: DMJ/MPS
Date: 06/18/12
Time: 13:05

PURGING METHOD

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Calculated Volume Of Water To Be Purged (gallons): 3.45Actual Volume of Water Purged (gallons): 2.00Did well purge dry? No ☐ Yes ☒Did well recover? No ☐ Yes ☒Recovery Time: 10 mins**SAMPLING METHOD**

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Sampled by: DMJ/MPS Time: 13:23 Date: 06/18/12

SAMPLING DATA**Sample Appearance**

Color: Clear Sediment: None
Odor: None

Field Measured Parameters

pH (Standard Units)	7.0	Sp. Conductivity (umhos/cm)	960
Temperature (F)	64.5	Eh-Redox Potential (mV)	-71
Turbidity (NTUs)	4.08	Dissolved Oxygen (mg/L)	-

Samples Collected (Number/Type):

Four bottles - T-Pb,As; D-Pb,As; PCBs (2)

Samples Delivered to: ULI Time: _____ Date: _____

COMMENTS:Needed to cut lock

**FIELD SAMPLING DATA SHEET**

Engineers • Environmental Scientists • Planners • Landscape Architects

SITE: Metalico - Thompson Road
CLIENT: Metalico Aluminum Recovery, Inc.
Weather Conditions: Overcast

SAMPLE LOCATION: B-404
JOB #: 1206.002.007
Temperature: 70 F

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	6.44
Measured Well Depth (feet)*:	16.14
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	1.55

*depth from measuring point

Measuring Point: Riser
Measured by: DMJ/MPS
Date: 06/18/12
Time: 10:45

PURGING METHOD

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Calculated Volume Of Water To Be Purged (gallons): 4.65Actual Volume of Water Purged (gallons): 4.75Did well purge dry? No ☒ Yes ☐Did well recover? No ☐ Yes ☒ Recovery Time: _____**SAMPLING METHOD**

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Sampled by: DMJ/MPS Time: 10:55 Date: 06/18/12**SAMPLING DATA****Sample Appearance**

Color: Clear Sediment: None
Odor: None

Field Measured Parameters

pH (Standard Units)	7.2	Sp. Conductivity (umhos/cm)	830
Temperature (F)	61.8	Eh-Redox Potential (mV)	-88
Turbidity (NTUs)	7.10	Dissolved Oxygen (mg/L)	-

Samples Collected (Number/Type):

Four bottles - T-Pb,As; D-Pb,As; PCBs (2)

Samples Delivered to: ULI Time: _____ Date: _____**COMMENTS:**

**FIELD SAMPLING DATA SHEET**

Engineers • Environmental Scientists • Planners • Landscape Architects

SITE: Metalico - Thompson Road
CLIENT: Metalico Aluminum Recovery, Inc.
Weather Conditions: Partly Cloudy

SAMPLE LOCATION: MW-8R / Dupe
JOB #: 1206.002.007
Temperature: 75 F

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	2.84
Measured Well Depth (feet)*:	10.00
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	1.15

*depth from measuring point

Measuring Point: Riser
Measured by: DMJ/MPS
Date: 06/18/12
Time: 13:37

PURGING METHOD

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Calculated Volume Of Water To Be Purged (gallons): 3.45Actual Volume of Water Purged (gallons): 3.50Did well purge dry? No ☒ Yes ☐Did well recover? No ☐ Yes ☐ Recovery Time: _____**SAMPLING METHOD**

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Sampled by: DMJ/MPS Time: 14:00 Date: 06/18/12

SAMPLING DATA*Sample Appearance*

Color: Clear Sediment: Fines
Odor: Chemical

Field Measured Parameters

pH (Standard Units)	6.9	Sp. Conductivity (umhos/cm)	15300
Temperature (F)	63.2	Eh-Redox Potential (mV)	-104
Turbidity (NTUs)	15.11	Dissolved Oxygen (mg/L)	-

Samples Collected (Number/Type):

Four bottles - T-Pb,As; D-Pb,As; PCBs (2)

Samples Delivered to: _____ Time: _____ Date: _____

COMMENTS:Black fines and small gravel in well bottom.

**FIELD SAMPLING DATA SHEET**

Engineers • Environmental Scientists • Planners • Landscape Architects

SITE: Metalico - Thompson Road
CLIENT: Metalico Aluminum Recovery, Inc.
Weather Conditions: Overcast

SAMPLE LOCATION: MW-8R
JOB #: 1206.002.007
Temperature: 75 F

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	4.08
Measured Well Depth (feet)*:	10.00
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	0.95

*depth from measuring point

Measuring Point: Riser
Measured by: MPS
Date: 08/08/12
Time: 14:45

PURGING METHOD

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Calculated Volume Of Water To Be Purged (gallons): 2.85Actual Volume of Water Purged (gallons): 3.00Did well purge dry? No ☒ Yes ☐Did well recover? No ☐ Yes ☐Recovery Time: Overnight**SAMPLING METHOD**

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Non-dedicated ☒ Foot Valve ☐ Peristaltic Pump ☒
Dedicated ☐ Bladder Pump ☐

Sampled by: MPS Time: 9:45 Date: 08/09/12**SAMPLING DATA****Sample Appearance**

Color: Clear Sediment: None
Odor: Strong Chemical

Field Measured Parameters

pH (Standard Units)	6.9	Sp. Conductivity (umhos/cm)	12500
Temperature (F)	71.3	Eh-Redox Potential (mV)	-103
Turbidity (NTUs)	14.18	Dissolved Oxygen (mg/L)	-

Samples Collected (Number/Type):T-Pb,As; D-Pb,AsSamples Delivered to: ALS courier Time: 15:56 Date: 08/09/12**COMMENTS:**Sheen on purge water



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1565 Jefferson Rd., Bldg. 300, Suite 360, Rochester, NY 14623 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax) PAGE 1 OF 2

Project Name Metalico - CAMU		Project Number 1206.002.005		ANALYSIS REQUESTED (Include Method Number and Container Preservative)													
Project Manager John Benson		Report CC Matt Strodel		PRESERVATIVE													
Company/Address Barton & Loguidice, PC 290 Elwood Davis Rd Liverpool NY 13088																	
Phone # 315-457-5200		E-mail J.Benson@bartonandloguidice.com															
Sampler's Signature <i>[Signature]</i>		Sampler's Printed Name MAT STRODEL / Derick M. Soren															
CLIENT SAMPLE ID		FOR OFFICE USE ONLY LAB ID		SAMPLING DATE TIME		MATRIX		NUMBER OF CONTAINERS		GC/MS VOA's <input type="checkbox"/> 8260 <input type="checkbox"/> 824 <input type="checkbox"/> CLP GC/MS SVOA's <input type="checkbox"/> 8270 <input type="checkbox"/> 825 GC VOA's <input type="checkbox"/> 8021 <input type="checkbox"/> 601/602 PESTICIDES <input type="checkbox"/> 8081 <input type="checkbox"/> 608 PCBs <input type="checkbox"/> 8082 <input type="checkbox"/> 608 METALS TOTAL (List in comments below) METALS DISSOLVED (List in comments below)				PRESERVATIVE KEY 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO4 8. Other _____			
B-281				06/18/12 09:00		GLW		5						REMARKS/ ALTERNATE DESCRIPTION MS/MJD			
B-290				09:50				4									
B-404				10:55				4									
B-291				10:35				4									
B-402 R				11:37				4									
B-401				10:20				4									
B-403				13:23				4									
MW-8R				14:00				4									
Duplicate				-				4									
Equipment Blank				10:18		Water		4									
SPECIAL INSTRUCTIONS/COMMENTS Metals Total - As, Pb Dissolved - As, Pb				TURNAROUND REQUIREMENTS ____ RUSH (SURCHARGES APPLY) ____ 1 day ____ 2 day ____ 3 day ____ 4 day ____ 5 day ____ Standard REQUESTED REPORT DATE _____				REPORT REQUIREMENTS ____ I. Results Only ____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required) ____ III. Results + QC and Calibration Summaries ____ IV. Data Validation Report with Raw Data				INVOICE INFORMATION PO #: BILL TO: R1203891 Barton & Loguidice, PC Metalico CAMU					
See QAPP <input type="checkbox"/>												5					
STATE WHERE SAMPLES WERE COLLECTED:																	
RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY									
Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature		Signature		Signature									
Printed Name Derick M. Soren		Printed Name Samuel Wais		Printed Name		Printed Name		Printed Name									
Firm B&L		Firm ALS		Firm		Firm		Firm									
Date/Time 6/19/12 13:25		Date/Time 6/19/12 13:25		Date/Time		Date/Time		Date/Time									



0553

SCOC Rev. 7/2011
FOIL209348



Cooler Receipt and Preservation Check Form

Project/Client Basta + Loguicis Folder Number R12-3891

Cooler received on 6/19/12 by: AP COURIER: ALS UPS FEDEX VELOCITY CLIENT

- Were custody seals on outside of cooler? YES NO
- Were custody papers properly filled out (ink, signed, etc.)? YES NO
- Did all bottles arrive in good condition (unbroken)? YES NO
- Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO N/A
- Were Ice or Ice packs present? YES NO
- Where did the bottles originate? ALS/ROO, CLIENT
- Temperature of cooler(s) upon receipt: 2.1° 1.0° 2.5°

Is the temperature within 0° - 6° C?: Yes Yes Yes Yes Yes

If No, Explain Below No No No No No

Date/Time Temperatures Taken: 6/19/12 1535 1330

Thermometer ID: IR GUN#3 / IR GUN#4 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition & Client Approval to Run Samples:

All Samples held in storage location R-002 by AP on 6/19/12 at 1545 1345
5035 samples placed in storage location by on at

PC Secondary Review: N/A

Cooler Breakdown: Date: 6/19/12 Time: 1445 by: AP

- Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
- Did all bottle labels and tags agree with custody papers? YES NO
- Were correct containers used for the tests indicated? YES NO
- Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO ₃	✓		<u>828261191</u>	<u>3/13</u>				
≤2	H ₂ SO ₄								
<4	NaHSO ₄								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	Na ₂ S ₂ O ₃	-	-			*Not to be tested before analysis - pH tested and recorded by VOAs or GenChem on a separate worksheet			
	Zn Aceta	-	-						
	HCl	*	*						

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust:

Bottle lot numbers: 042312-20, 040312-1R

Other Comments:

PC Secondary Review: [Signature]

H:\SMODOCS\Cooler Receipt 5.doc

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

00065
FOI209349



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 2752

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE _____ OF _____

Project Name Metalico		Project Number 1206.002.007		ANALYSIS REQUESTED (Include Method Number and Container Preservative)													
Project Manager John Benson		Report CC		PRESERVATIVE													
Company/Address Barton + Loguidice				NUMBER OF CONTAINERS													
Phone # 315-457-5200		Email		GC/MS VOCs • 8260 • 824 • CLP GC/MS SVOCs • 8270 • 825 GC VOCs • 8021 • 801/802 PESTICIDES • 8081 • 808 PCBs • 8062 • 808 METALS, TOTAL Pb + As (List in comments below) METALS, DISSOLVED (List in comments below)													
Sample Signature [Signature]		Sampler's Printed Name John Benson		Preservative Key 0. NONE 1. HCL 2. HNO ₃ 3. H ₂ SO ₄ 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO ₄ 8. Other _____ REMARKS/ ALTERNATE DESCRIPTION													
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE TIME MATRIX															
SW-002B		7/31/12	1300	Soil	1							*T-Lead + Arsenic					
SW-002A		7/31/12	1315	Soil	1							Low level PCB's 20.5 ug/L ug/Kg					
SPECIAL INSTRUCTIONS/COMMENTS Metals				TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) ____ 1 day ____ 2 day ____ 3 day ____ 4 day ____ 5 day REQUESTED REPORT DATE _____				REPORT REQUIREMENTS ____ I. Results Only ____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required) ____ III. Results + QC and Calibration Summaries ____ IV. Data Validation Report with Edata ____ Yes ____				INVOICE INFORMATION PO # BILL TO: R1204955 Barton & Loguidice, PC Metalico Site 5					
STATE WHERE SAMPLES WERE COLLECTED																	
RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY									
Signature [Signature]		Signature Samuel White		Signature		Signature		Signature									
Printed Name John Benson		Printed Name ALS		Printed Name		Printed Name		Printed Name									
Firm BTL		Firm 8/1/12/1330		Firm		Firm		Firm									
Date/Time 8/1/12 10:06AM		Date/Time		Date/Time		Date/Time		Date/Time									

Distribution: White - Lab Copy; Yellow - Return to Originator



Cooler Receipt and Preservation Check Form

Project/Client B+L

Folder Number R12-4955

Cooler received on 8/1/12 by: SW COURIER: ALS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO N/A
5. Were ice or Ice packs present? YES NO
6. Where did the bottles originate? ALS/ROC, CLIENT
7. Temperature of cooler(s) upon receipt: 2.4°

Is the temperature within 0° - 6° C?: Yes Yes Yes Yes Yes

If No, Explain Below. No No No No No

Date/Time Temperatures Taken: 8/1/12 / 1334

Thermometer ID: IR GUN#3 / IR GUN#4 . Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition & Client Approval to Run Samples:

All Samples held in storage location R-002 by SW on 8/1/12 at 1334
5035 samples placed in storage location by on at

PC Secondary Review: SW

Cooler Breakdown: Date: 8/1/12 Time: 1540 by: SW

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

pH	Reagent	YES	NO	Lot Received **	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO ₃								
≤2	H ₂ SO ₄								
<4	NaHSO ₄								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	Na ₂ S ₂ O ₃	-	-			*Not to be tested before analysis - pH tested and recorded by VOAs or GenChem on a separate worksheet			
	Zn Aceta	-	-						
	HCl	*	*						

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust:

Bottle lot numbers: BDB26121F

Other Comments:

PC Secondary Review: SW
H:\SMODOCS\Cooler Receipt 5.doc

*significant air bubbles: VOA > 5-6 mm : WC -1 in. diameter



Cooler Receipt and Preservation Check Form

Project/Client Barton + Loguidice Folder Number 212-5209

Cooler received on 8-9-12 by: KE COURIER: ALS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO N/A
5. Were Ice or Ice packs present? YES NO
6. Where did the bottles originate? ALS/ROC CLIENT
7. Temperature of cooler(s) upon receipt: 5.2°

Is the temperature within 0° - 6° C?: Yes Yes Yes Yes Yes

If No, Explain Below No No No No No

Date/Time Temperatures Taken: 8-9-12 @ 16:15

Thermometer ID: IR GUN#3 IR GUN#4 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition & Client Approval to Run Samples:

All Samples held in storage location R-002 by KE on 8-9-12 at 16:20
5035 samples placed in storage location by on at

PC Secondary Review: [Signature]

Cooler Breakdown: Date: 8/9/12 Time: 1815 by: KE

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO ₃	✓		<u>BDB26, 12/11</u>	<u>6/13</u>				
≤2	H ₂ SO ₄								
<4	NaHSO ₄								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	Na ₂ S ₂ O ₃	-	-			*Not to be tested before analysis - pH tested and recorded by VOAs or GenChem on a separate worksheet			
	Zn Acetate	-	-						
	HCl	*	*						

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust:

Bottle lot numbers: 042312-20, 061112-1X
Other Comments:

PC Secondary Review: [Signature]

H:\SMODOCS\Cooler Receipt 5.doc

*significant air bubbles: VOA > 5-6 mm ; WC > 1 in. diameter

Appendix B



July 05, 2012

Service Request No: R1203891

Mr. John Benson
Barton & Loguidice, PC
290 Elwood Davis Drive
P.O. Box 3107
Syracuse, NY 13220

Laboratory Results for: Metalico CAMU/1206.002.005

Dear Mr. Benson:

Enclosed are the results of the sample(s) submitted to our laboratory on June 19, 2012. For your reference, these analyses have been assigned our service request number **R1203891**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

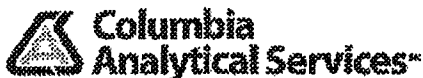
Please contact me if you have any questions. My extension is 7473. You may also contact me via email at DPatton@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Environmental

Deb Patton
Project Manager

Page 1 of 65



ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623

PHONE 585-288-5380 | FAX 585-288-8475

Columbia Analytical Services, Inc.

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RIGHT SOLUTIONS. RIGHT PARTNERS.

00001
POL209355

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1203891

<u>Lab ID</u>	<u>Client ID</u>
R1203891-001	B-281
R1203891-002	B-281 Dissolved
R1203891-003	B-290
R1203891-004	B-290 Dissolved
R1203891-005	B-404
R1203891-006	B-404 Dissolved
R1203891-007	B-291
R1203891-008	B-291 Dissolved
R1203891-009	B-402R
R1203891-010	B-402R Dissolved
R1203891-011	B-401
R1203891-012	B-401 Dissolved
R1203891-013	B-403
R1203891-014	B-403 Dissolved
R1203891-015	MW-8R
R1203891-016	MW-8R Dissolved
R1203891-017	DUPLICATE
R1203891-018	DUPLICATE Dissolved
R1203891-019	EQUIPMENT BLANK
R1203891-020	EQUIPMENT BLANK Dissolved
R1203891-021	SW-002A
R1203891-022	SW-002A
R1203891-023	SW-002B
R1203891-024	SW-002B
R1203891-025	B-286
R1203891-026	B-286 Dissolved

All samples were received in good condition unless otherwise noted on the cooler receipt and preservation check form located at the end of this report.

All samples were preserved in accordance with approved analytical methods.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

All sampling activities performed by CAS personnel have been in accordance with "CAS Field Procedures and Measurements Manual" or by client specifications.

REPORT QUALIFIERS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- * Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
- H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
- # Spike was diluted out.
- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Concentration >40% (25% for CLP) difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).
- X See Case Narrative for discussion.



CAS/Rochester Lab ID # for State Certifications¹

NELAP Accredited
Connecticut ID # PH0556
Delaware Accredited
DoD ELAP #65817
Florida ID # E87674
Illinois ID #200047
Maine ID #NY0032
Nebraska Accredited

Nevada ID # NY-00032
New Jersey ID # NY004
New York ID # 10145
New Hampshire ID # 294100 A/B
North Carolina #676
Pennsylvania ID# 68-786
Rhode Island ID # 158
Virginia #460167

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to the certifications section at www.caslab.com.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water
Sample Name: B-281
Lab Code: R1203891-001

Service Request: R1203891
Date Collected: 6/18/12 0900
Date Received: 6/19/12

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10	1	6/20/12	6/29/12 21:03	
Lead, Total	6010C	50	U	µg/L	50	1	6/20/12	7/3/12 10:22	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water
Sample Name: B-281 Dissolved
Lab Code: R1203891-002

Service Request: R1203891
Date Collected: 6/18/12 0900
Date Received: 6/19/12

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10 U	µg/L	10	1	6/21/12	7/2/12 09:53	
Lead, Dissolved	6010C	50 U	µg/L	50	1	6/21/12	7/2/12 09:53	

COLUMBIA ANALYTICAL SERVICES, INC.Now part of the ALS Group
Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Collected: 6/18/12 0900
Date Received: 6/19/12
Date Extracted: 6/20/12
Date Analyzed: 6/21/12 18:07

Sample Name: B-281
Lab Code: R1203891-001

Units: µg/L
Basis: NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C
Data File Name: J:\ACQU\DATA\6890G\DATA\062112\AR517.D\

Analysis Lot: 297312
Extraction Lot: 160823
Instrument Name: R-GC-58
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
53469-21-9	Aroclor 1242	0.047	U	0.047	
12672-29-6	Aroclor 1248	0.047	U	0.047	
11097-69-1	Aroclor 1254	0.047	U	0.047	
11096-82-5	Aroclor 1260	0.047	U	0.047	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	75	14-138	6/21/12 18:07	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water
Sample Name: B-290
Lab Code: R1203891-003

Service Request: R1203891
Date Collected: 6/18/12 0950
Date Received: 6/19/12

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	36		µg/L	10	1	6/20/12	6/29/12 21:39	
Lead, Total	6010C	305		µg/L	50	1	6/20/12	7/3/12 10:54	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water
Sample Name: B-290 Dissolved
Lab Code: R1203891-004

Service Request: R1203891
Date Collected: 6/18/12 0950
Date Received: 6/19/12

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10 U	µg/L	10	1	6/20/12	6/29/12 21:46	
Lead, Dissolved	6010C	50 U	µg/L	50	1	6/20/12	7/3/12 11:01	

COLUMBIA ANALYTICAL SERVICES, INC.Now part of the ALS Group
Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Collected: 6/18/12 0950
Date Received: 6/19/12
Date Extracted: 6/20/12
Date Analyzed: 6/21/12 19:49

Sample Name: B-290
Lab Code: R1203891-003

Units: µg/L
Basis: NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C
Data File Name: J:\ACQU\DATA\6890G\DATA\062112\AR520.D\

Analysis Lot: 297312
Extraction Lot: 160823
Instrument Name: R-GC-58
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
53469-21-9	Aroclor 1242	0.047 U	0.047	
12672-29-6	Aroclor 1248	0.047 U	0.047	
11097-69-1	Aroclor 1254	0.047 U	0.047	
11096-82-5	Aroclor 1260	0.047 U	0.047	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	73	14-138	6/21/12 19:49	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water
Sample Name: B-404
Lab Code: R1203891-005

Service Request: R1203891
Date Collected: 6/18/12 1055
Date Received: 6/19/12

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10	1	6/20/12	6/29/12 21:54	
Lead, Total	6010C	50	U	µg/L	50	1	6/20/12	7/3/12 11:08	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Collected: 6/18/12 1055
Date Received: 6/19/12

Sample Name: B-404 Dissolved
Lab Code: R1203891-006

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10	1	6/20/12	6/29/12 22:12	
Lead, Dissolved	6010C	50	U	µg/L	50	1	6/20/12	7/3/12 11:24	

COLUMBIA ANALYTICAL SERVICES, INC.Now part of the ALS Group
Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Collected: 6/18/12 1055
Date Received: 6/19/12
Date Extracted: 6/20/12
Date Analyzed: 6/21/12 21:31

Sample Name: B-404
Lab Code: R1203891-005

Units: µg/L
Basis: NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C
Data File Name: J:\ACQU\DATA\6890G\DATA\062112\AR523.D\

Analysis Lot: 297312
Extraction Lot: 160823
Instrument Name: R-GC-58
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
53469-21-9	Aroclor 1242	0.047 U	0.047	
12672-29-6	Aroclor 1248	0.047 U	0.047	
11097-69-1	Aroclor 1254	0.047 U	0.047	
11096-82-5	Aroclor 1260	0.047 U	0.047	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	76	14-138	6/21/12 21:31	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water
Sample Name: B-291
Lab Code: R1203891-007

Service Request: R1203891
Date Collected: 6/18/12 1035
Date Received: 6/19/12

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10	1	6/20/12	6/29/12 22:19	
Lead, Total	6010C	50	U	µg/L	50	1	6/20/12	7/3/12 11:30	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water
Sample Name: B-291 Dissolved
Lab Code: R1203891-008

Service Request: R1203891
Date Collected: 6/18/12 1035
Date Received: 6/19/12

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10	1	6/20/12	6/29/12 22:25	
Lead, Dissolved	6010C	50	U	µg/L	50	1	6/20/12	7/3/12 11:36	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Collected: 6/18/12 1035
Date Received: 6/19/12
Date Extracted: 6/20/12
Date Analyzed: 6/21/12 22:05

Sample Name: B-291
Lab Code: R1203891-007

Units: µg/L
Basis: NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C
Data File Name: J:\ACQUDATA\6890G\DATA\062112\AR524.D\

Analysis Lot: 297312
Extraction Lot: 160823
Instrument Name: R-GC-58
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
53469-21-9	Aroclor 1242	0.047	U	0.047	
12672-29-6	Aroclor 1248	0.047	U	0.047	
11097-69-1	Aroclor 1254	0.047	U	0.047	
11096-82-5	Aroclor 1260	0.047	U	0.047	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	79	14-138	6/21/12 22:05	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206,002.005
Sample Matrix: Water
Sample Name: B-402R
Lab Code: R1203891-009

Service Request: R1203891
Date Collected: 6/18/12 1137
Date Received: 6/19/12

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	15		µg/L	10	1	6/20/12	6/29/12 22:31	
Lead, Total	6010C	50	U	µg/L	50	1	6/20/12	7/3/12 11:41	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Collected: 6/18/12 1137
Date Received: 6/19/12

Sample Name: B-402R Dissolved
Lab Code: R1203891-010

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	14		µg/L	10	1	6/20/12	6/29/12 22:39	
Lead, Dissolved	6010C	50	U	µg/L	50	1	6/20/12	7/3/12 11:47	

COLUMBIA ANALYTICAL SERVICES, INC.Now part of the ALS Group
Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Collected: 6/18/12 1137
Date Received: 6/19/12
Date Extracted: 6/20/12
Date Analyzed: 6/21/12 22:39

Sample Name: B-402R
Lab Code: R1203891-009

Units: µg/L
Basis: NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C
Data File Name: J:\ACQU\DATA\6890G\DATA\062112\AR525.D\

Analysis Lot: 297312
Extraction Lot: 160823
Instrument Name: R-GC-58
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
53469-21-9	Aroclor 1242	0.047 U	0.047	
12672-29-6	Aroclor 1248	0.047 U	0.047	
11097-69-1	Aroclor 1254	0.047 U	0.047	
11096-82-5	Aroclor 1260	0.047 U	0.047	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	73	14-138	6/21/12 22:39	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water
Sample Name: B-401
Lab Code: R1203891-011

Service Request: R1203891
Date Collected: 6/18/12 1020
Date Received: 6/19/12

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10	1	6/20/12	6/29/12 22:46	
Lead, Total	6010C	50	U	µg/L	50	1	6/20/12	7/3/12 11:53	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Collected: 6/18/12 1020
Date Received: 6/19/12

Sample Name: B-401 Dissolved
Lab Code: R1203891-012

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10	1	6/20/12	6/29/12 22:54	
Lead, Dissolved	6010C	50	U	µg/L	50	1	6/20/12	7/3/12 11:59	

COLUMBIA ANALYTICAL SERVICES, INC.Now part of the ALS Group
Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Collected: 6/18/12 1020
Date Received: 6/19/12
Date Extracted: 6/20/12
Date Analyzed: 6/21/12 23:13

Sample Name: B-401
Lab Code: R1203891-011

Units: µg/L
Basis: NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C
Data File Name: J:\ACQU\DATA\6890G\DATA\062112\AR526.D\

Analysis Lot: 297312
Extraction Lot: 160823
Instrument Name: R-GC-58
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
53469-21-9	Aroclor 1242	0.047	U	0.047	
12672-29-6	Aroclor 1248	0.047	U	0.047	
11097-69-1	Aroclor 1254	0.047	U	0.047	
11096-82-5	Aroclor 1260	0.047	U	0.047	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	76	14-138	6/21/12 23:13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water
Sample Name: B-403
Lab Code: R1203891-013

Service Request: R1203891
Date Collected: 6/18/12 1323
Date Received: 6/19/12

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10 U	µg/L	10	1	6/20/12	6/29/12 23:01	
Lead, Total	6010C	50 U	µg/L	50	1	6/20/12	7/3/12 12:05	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Collected: 6/18/12 1323
Date Received: 6/19/12

Sample Name: B-403 Dissolved
Lab Code: R1203891-014

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10	1	6/20/12	6/29/12 23:08	
Lead, Dissolved	6010C	50	U	µg/L	50	1	6/20/12	7/3/12 12:11	

COLUMBIA ANALYTICAL SERVICES, INC.Now part of the ALS Group
Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Collected: 6/18/12 1323
Date Received: 6/19/12
Date Extracted: 6/20/12
Date Analyzed: 6/21/12 23:47

Sample Name: B-403
Lab Code: R1203891-013

Units: µg/L
Basis: NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C
Data File Name: J:\ACQUDATA\6890G\DATA\062112\AR527.D\

Analysis Lot: 297312
Extraction Lot: 160823
Instrument Name: R-GC-58
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
53469-21-9	Aroclor 1242	0.047	U	0.047	
12672-29-6	Aroclor 1248	0.047	U	0.047	
11097-69-1	Aroclor 1254	0.047	U	0.047	
11096-82-5	Aroclor 1260	0.047	U	0.047	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	77	14-138	6/21/12 23:47	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water
Sample Name: MW-8R
Lab Code: R1203891-015

Service Request: R1203891
Date Collected: 6/18/12 1400
Date Received: 6/19/12

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	16		µg/L	10	1	6/20/12	6/29/12 23:14	
Lead, Total	6010C	50	U	µg/L	50	1	6/20/12	7/3/12 12:16	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water
Sample Name: MW-8R Dissolved
Lab Code: R1203891-016

Service Request: R1203891
Date Collected: 6/18/12 1400
Date Received: 6/19/12

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	12		µg/L	10	1	6/20/12	6/29/12 23:34	
Lead, Dissolved	6010C	50	U	µg/L	50	1	6/20/12	7/3/12 12:33	

COLUMBIA ANALYTICAL SERVICES, INC.Now part of the ALS Group
Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Collected: 6/18/12 1400
Date Received: 6/19/12
Date Extracted: 6/20/12
Date Analyzed: 6/22/12 09:32

Sample Name: MW-8R
Lab Code: R1203891-015

Units: µg/L
Basis: NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C
Data File Name: J:\ACQUDATA\6890G\DATA\062112\AR543.D\

Analysis Lot: 297312
Extraction Lot: 160823
Instrument Name: R-GC-58
Dilution Factor: 10

CAS No.	Analyte Name	Result Q	MRL	Note
53469-21-9	Aroclor 1242	0.47 U	0.47	
12672-29-6	Aroclor 1248	0.47 U	0.47	
11097-69-1	Aroclor 1254	15	0.47	
11096-82-5	Aroclor 1260	0.47 U	0.47	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	74	14-138	6/22/12 09:32	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891**Date Collected:** 6/18/12**Date Received:** 6/19/12**Sample Name:** DUPLICATE**Lab Code:** R1203891-017**Basis:** NA**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	15		µg/L	10	1	6/20/12	6/29/12 23:42	
Lead, Total	6010C	50	U	µg/L	50	1	6/20/12	7/3/12 12:40	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water
Sample Name: DUPLICATE Dissolved
Lab Code: R1203891-018

Service Request: R1203891
Date Collected: 6/18/12
Date Received: 6/19/12

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	11		µg/L	10	1	6/20/12	6/29/12 23:50	
Lead, Dissolved	6010C	50	U	µg/L	50	1	6/20/12	7/3/12 12:47	

COLUMBIA ANALYTICAL SERVICES, INC.Now part of the ALS Group
Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Collected: 6/18/12
Date Received: 6/19/12
Date Extracted: 6/20/12
Date Analyzed: 6/22/12 10:06

Sample Name: DUPLICATE
Lab Code: R1203891-017

Units: µg/L
Basis: NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C
Data File Name: J:\ACQUDATA\6890G\DATA\062112\AR544.D\

Analysis Lot: 297312
Extraction Lot: 160823
Instrument Name: R-GC-58
Dilution Factor: 5

CAS No.	Analyte Name	Result	Q	MRL	Note
53469-21-9	Aroclor 1242	0.24	U	0.24	
12672-29-6	Aroclor 1248	0.24	U	0.24	
11097-69-1	Aroclor 1254	5.9		0.24	
11096-82-5	Aroclor 1260	0.24	U	0.24	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	71	14-138	6/22/12 10:06	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water
Sample Name: EQUIPMENT BLANK
Lab Code: R1203891-019

Service Request: R1203891
Date Collected: 6/18/12 1018
Date Received: 6/19/12

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10	1	6/20/12	6/29/12 23:57	
Lead, Total	6010C	50	U	µg/L	50	1	6/20/12	7/3/12 12:54	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water
Sample Name: EQUIPMENT BLANK Dissolved
Lab Code: R1203891-020

Service Request: R1203891
Date Collected: 6/18/12 1018
Date Received: 6/19/12

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10 U	µg/L	10	1	6/20/12	6/30/12 00:04	
Lead, Dissolved	6010C	50 U	µg/L	50	1	6/20/12	7/3/12 13:00	

COLUMBIA ANALYTICAL SERVICES, INC.Now part of the ALS Group
Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Collected: 6/18/12 1018
Date Received: 6/19/12
Date Extracted: 6/20/12
Date Analyzed: 6/25/12 11:49

Sample Name: EQUIPMENT BLANK
Lab Code: R1203891-019

Units: µg/L
Basis: NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C
Data File Name: J:\ACQUDATA\6890G\DATA\062512\AR555.D\

Analysis Lot: 297312
Extraction Lot: 160823
Instrument Name: R-GC-58
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
53469-21-9	Aroclor 1242	0.047	U	0.047	
12672-29-6	Aroclor 1248	0.047	U	0.047	
11097-69-1	Aroclor 1254	0.047	U	0.047	
11096-82-5	Aroclor 1260	0.047	U	0.047	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	72	14-138	6/25/12 11:49	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water
Sample Name: SW-002A
Lab Code: R1203891-021

Service Request: R1203891
Date Collected: 6/18/12 1115
Date Received: 6/19/12

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10	1	6/20/12	6/30/12 00:10	
Lead, Total	6010C	50	U	µg/L	50	1	6/20/12	7/3/12 13:06	

COLUMBIA ANALYTICAL SERVICES, INC.Now part of the ALS Group
Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Collected: 6/18/12 1115
Date Received: 6/19/12
Date Extracted: 6/20/12
Date Analyzed: 6/22/12 02:03

Sample Name: SW-002A
Lab Code: R1203891-021

Units: µg/L
Basis: NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C
Data File Name: J:\ACQUDATA\6890G\DATA\062112\AR531.D\

Analysis Lot: 297312
Extraction Lot: 160823
Instrument Name: R-GC-58
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
53469-21-9	Aroclor 1242	0.047 U	0.047	
12672-29-6	Aroclor 1248	0.047 U	0.047	
11097-69-1	Aroclor 1254	0.047 U	0.047	
11096-82-5	Aroclor 1260	0.047 U	0.047	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	75	14-138	6/22/12 02:03	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Soil
Sample Name: SW-002A
Lab Code: R1203891-022

Service Request: R1203891
Date Collected: 6/18/12 1115
Date Received: 6/19/12

Basis: As Received**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.72	pH Units		1	NA	6/22/12 14:41	
Solids, Total	160.3 Modified	65.7	Percent	1.0	1	NA	6/26/12 19:39	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Soil
Sample Name: SW-002A
Lab Code: R1203891-022

Service Request: R1203891
Date Collected: 6/18/12 1115
Date Received: 6/19/12

Basis: Dry
Percent Solids: 65.7

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	7.0	mg/Kg	1.4	1	6/21/12	6/22/12 16:04	
Lead, Total	6010C	364	mg/Kg	7.2	1	6/21/12	6/22/12 16:04	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Soil

Service Request: R1203891
Date Collected: 6/18/12 11:15
Date Received: 6/19/12
Date Extracted: 6/21/12
Date Analyzed: 6/22/12 09:12

Sample Name: SW-002A
Lab Code: R1203891-022

Units: µg/Kg
Basis: Dry
Percent Solids: 65.7

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3541
Data File Name: J:\ACQUDATA\GCEXT4\DATA\062212\NI288.D\

Analysis Lot: 297355
Extraction Lot: 160930
Instrument Name: R-GC-56
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
53469-21-9	Aroclor 1242	50 U	50	
12672-29-6	Aroclor 1248	82	50	
11097-69-1	Aroclor 1254	65	50	
11096-82-5	Aroclor 1260	50 U	50	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	34	32-141	6/22/12 09:12	
Tetrachloro-m-xylene	43	12-136	6/22/12 09:12	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water
Sample Name: SW-002B
Lab Code: R1203891-023

Service Request: R1203891
Date Collected: 6/18/12 1105
Date Received: 6/19/12

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10 U	µg/L	10	1	6/21/12	7/2/12 10:23	
Lead, Total	6010C	50 U	µg/L	50	1	6/21/12	7/2/12 10:23	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Collected: 6/18/12 1105
Date Received: 6/19/12
Date Extracted: 6/20/12
Date Analyzed: 6/22/12 02:37

Sample Name: SW-002B
Lab Code: R1203891-023

Units: µg/L
Basis: NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C
Data File Name: J:\ACQUDATA\6890G\DATA\062112\AR532.D\

Analysis Lot: 297312
Extraction Lot: 160823
Instrument Name: R-GC-58
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
53469-21-9	Aroclor 1242	0.047	U	0.047	
12672-29-6	Aroclor 1248	0.047	U	0.047	
11097-69-1	Aroclor 1254	0.047	U	0.047	
11096-82-5	Aroclor 1260	0.047	U	0.047	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	67	14-138	6/22/12 02:37	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Soil
Sample Name: SW-002B
Lab Code: R1203891-024

Service Request: R1203891
Date Collected: 6/18/12 1105
Date Received: 6/19/12

Basis: As Received**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.53	pH Units		1	NA	6/22/12 14:41	
Solids, Total	160.3 Modified	46.3	Percent	1.0	1	NA	6/26/12 19:39	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Soil
Sample Name: SW-002B
Lab Code: R1203891-024

Service Request: R1203891
Date Collected: 6/18/12 1105
Date Received: 6/19/12

Basis: Dry
Percent Solids: 46.3

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	9.9		mg/Kg	2.1	1	6/21/12	6/22/12 16:10	
Lead, Total	6010C	474		mg/Kg	10	1	6/21/12	6/22/12 16:10	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Soil

Service Request: R1203891
Date Collected: 6/18/12 1105
Date Received: 6/19/12
Date Extracted: 6/21/12
Date Analyzed: 6/22/12 12:40

Sample Name: SW-002B
Lab Code: R1203891-024

Units: µg/Kg
Basis: Dry
Percent Solids: 46.3

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3541
Data File Name: J:\ACQUDATA\GCEXT4\DATA\062212\NI294.D\

Analysis Lot: 297355
Extraction Lot: 160930
Instrument Name: R-GC-56
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
53469-21-9	Aroclor 1242	140 U	140	
12672-29-6	Aroclor 1248	220	140	
11097-69-1	Aroclor 1254	150	140	
11096-82-5	Aroclor 1260	140 U	140	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	79	32-141	6/22/12 12:40	
Tetrachloro-m-xylene	66	12-136	6/22/12 12:40	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water
Sample Name: B-286
Lab Code: R1203891-025

Service Request: R1203891
Date Collected: 6/18/12 1505
Date Received: 6/19/12

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10	1	6/21/12	7/2/12 10:29	
Lead, Total	6010C	50	U	µg/L	50	1	6/21/12	7/2/12 10:29	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Collected: 6/18/12 1505
Date Received: 6/19/12

Sample Name: B-286 Dissolved
Lab Code: R1203891-026

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10	1	6/21/12	7/2/12 10:35	
Lead, Dissolved	6010C	50	U	µg/L	50	1	6/21/12	7/2/12 10:35	

COLUMBIA ANALYTICAL SERVICES, INC.Now part of the ALS Group
Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Collected: 6/18/12 1505
Date Received: 6/19/12
Date Extracted: 6/20/12
Date Analyzed: 6/22/12 07:09

Sample Name: B-286
Lab Code: R1203891-025

Units: µg/L
Basis: NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C
Data File Name: J:\ACQU\DATA\6890G\DATA\062112\AR540.D\

Analysis Lot: 297312
Extraction Lot: 160823
Instrument Name: R-GC-58
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
53469-21-9	Aroclor 1242	0.047 U	0.047	
12672-29-6	Aroclor 1248	0.047 U	0.047	
11097-69-1	Aroclor 1254	0.047 U	0.047	
11096-82-5	Aroclor 1260	0.047 U	0.047	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	66	14-138	6/22/12 07:09	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Soil
Sample Name: Method Blank
Lab Code: R1203891-MB

Service Request: R1203891
Date Collected: NA
Date Received: NA

Basis: As Received**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	1.0 U	Percent	1.0	1	NA	6/26/12 19:39	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Soil
Sample Name: Method Blank
Lab Code: R1203891-MB1

Service Request: R1203891
Date Collected: NA
Date Received: NA

Basis: Dry**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	1.0	U	mg/Kg	1.0	1	6/21/12	6/22/12 15:28	
Lead, Total	6010C	5.0	U	mg/Kg	5.0	1	6/21/12	6/22/12 15:28	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891**Date Collected:** NA**Date Received:** NA

Sample Name: Method Blank
Lab Code: R1203891-MB2

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10	1	6/20/12	6/29/12 20:49	
Arsenic, Total	6010C	10	U	µg/L	10	1	6/20/12	6/29/12 20:49	
Lead, Dissolved	6010C	50	U	µg/L	50	1	6/21/12	7/2/12 09:41	
Lead, Total	6010C	50	U	µg/L	50	1	6/21/12	7/2/12 09:41	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891**Date Collected:** NA**Date Received:** NA

Sample Name: Method Blank
Lab Code: R1203891-MB3

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10	1	6/21/12	7/2/12 09:41	
Arsenic, Total	6010C	10	U	µg/L	10	1	6/21/12	7/2/12 09:41	
Lead, Dissolved	6010C	50	U	µg/L	50	1	6/20/12	7/3/12 10:12	
Lead, Total	6010C	50	U	µg/L	50	1	6/20/12	7/3/12 10:12	

COLUMBIA ANALYTICAL SERVICES, INC.Now part of the ALS Group
Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Collected: NA
Date Received: NA
Date Extracted: 6/20/12
Date Analyzed: 6/21/12 14:43

Sample Name: Method Blank
Lab Code: RQ1206975-01

Units: µg/L
Basis: NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C
Data File Name: J:\ACQUDATA\6890G\DATA\062112\AR511.D\

Analysis Lot: 297312
Extraction Lot: 160823
Instrument Name: R-GC-58
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
53469-21-9	Aroclor 1242	0.050	U	0.050	
12672-29-6	Aroclor 1248	0.050	U	0.050	
11097-69-1	Aroclor 1254	0.050	U	0.050	
11096-82-5	Aroclor 1260	0.050	U	0.050	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	71	14-138	6/21/12 14:43	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Soil

Service Request: R1203891
Date Collected: NA
Date Received: NA
Date Extracted: 6/21/12
Date Analyzed: 6/22/12 12:06

Sample Name: Method Blank
Lab Code: RQ1207025-01

Units: µg/Kg
Basis: Dry

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3541
Data File Name: J:\ACQUDATA\GCEXT4\DATA\062212\NI293.D\

Analysis Lot: 297355
Extraction Lot: 160930
Instrument Name: R-GC-56
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
53469-21-9	Aroclor 1242	33 U	33	
12672-29-6	Aroclor 1248	33 U	33	
11097-69-1	Aroclor 1254	33 U	33	
11096-82-5	Aroclor 1260	33 U	33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	87	32-141	6/22/12 12:06	
Tetrachloro-m-xylene	56	12-136	6/22/12 12:06	

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891**Date Collected:** 6/18/12**Date Received:** 6/19/12**Date Analyzed:** 6/29/12 -
7/3/12**Replicate Sample Summary
Inorganic Parameters**

Sample Name: B-281
Lab Code: R1203891-001

Units: µg/L
Basis: NA

Analyte Name	Method	MRL	Sample Result	B-281DUP Duplicate Sample R1203891-001DUP1			RPD	RPD Limit
				Result	Average	RPD		
Arsenic, Total	6010C	10	10 U	10 U	NC	NC		20
Lead, Total	6010C	50	50 U	50 U	NC	NC		20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Printed 7/5/12 9:59

Form 3B

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SuperSet Reference: 12-0000215557 rev 00

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COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891**Date Collected:** 6/18/12**Date Received:** 6/19/12**Date Analyzed:** 6/29/12 -
7/ 3/12**Matrix Spike Summary
Inorganic Parameters**

Sample Name: B-281
Lab Code: R1203891-001

Units: µg/L**Basis:** NA

Analytical Method: 6010C
Prep Method: EPA 3010A

**B-281MS
Matrix Spike
R1203891-001MS1**

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic, Total	ND	49	40	122	75 - 125
Lead, Total	ND	461	500	92	75 - 125

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Form 3A

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SuperSet Reference: 12-0000215557 rev 00

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COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891**Date Collected:** 6/18/12**Date Received:** 6/19/12**Date Analyzed:** 7/2/12**Replicate Sample Summary
Inorganic Parameters**

Sample Name: B-281 Dissolved
Lab Code: R1203891-002

Units: µg/L**Basis:** NA

Analyte Name	Method	MRL	Sample Result	B-281 DissolvedDUP Duplicate Sample R1203891-002DUP2		RPD	RPD Limit
				Result	Average		
Arsenic, Dissolved	6010C	10	10 U	10 U	NC	NC	20
Lead, Dissolved	6010C	50	50 U	50 U	NC	NC	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Form 3B

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QA/QC Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891**Date Collected:** 6/18/12**Date Received:** 6/19/12**Date Analyzed:** 7/ 2/12**Matrix Spike Summary
Inorganic Parameters**

Sample Name: B-281 Dissolved
Lab Code: R1203891-002

Units: µg/L**Basis:** NA

Analytical Method: 6010C
Prep Method: EPA 3010A

B-281 DissolvedMS
Matrix Spike
R1203891-002MS2

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic, Dissolved	ND	42	40	105	75 - 125
Lead, Dissolved	ND	471	500	94	75 - 125

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Form 3A

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COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Collected: 6/18/12
Date Received: 6/19/12
Date Analyzed: 6/21/12

Matrix Spike Summary
Low Level Polychlorinated Biphenyls (PCBs) by GC

Sample Name: B-281
Lab Code: R1203891-001

Units: µg/L
Basis: NA

Analytical Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Sample Result	B-281MS Matrix Spike RQ1206975-06			B-281DMS Duplicate Matrix Spike RQ1206975-07			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Aroclor 1260	ND	0.294	0.472	62	0.355	0.472	75	51 - 123	19	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Soil

Service Request: R1203891**Date Analyzed:** 6/22/12**Lab Control Sample Summary
Inorganic Parameters****Units:** mg/Kg**Basis:** Dry**Lab Control Sample**

R1203891-LCS1

Analyte Name	Method	Result	Spike	% Rec	% Rec Limits
			Amount		
Arsenic, Total	6010C	95.1	94.5	101	82.3 - 117
Lead, Total	6010C	94.0	91.8	102	82.2 - 117

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Form 3C

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QA/QC Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891**Date Analyzed:** 6/29/12 -
7/2/12**Lab Control Sample Summary
Inorganic Parameters****Units:** µg/L**Basis:** NA**Lab Control Sample
R1203891-LCS2**

Analyte Name	Method	Result	Spike		% Rec	% Rec Limits
			Amount			
Arsenic, Dissolved	6010C	40.7	40	102		80 - 120
Arsenic, Total	6010C	40.7	40	102		80 - 120
Lead, Dissolved	6010C	497	500	99		80 - 120
Lead, Total	6010C	497	500	99		80 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Form 3C

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COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Analyzed: 7/ 2/12 -
7/ 3/12

Lab Control Sample Summary
Inorganic Parameters

Units: µg/L
Basis: NA

Lab Control Sample
R1203891-LCS3

Analyte Name	Method	Result	Spike		% Rec	% Rec Limits
			Amount	% Rec		
Arsenic, Dissolved	6010C	40.5	40	101		80 - 120
Arsenic, Total	6010C	40.5	40	101		80 - 120
Lead, Dissolved	6010C	523	500	105		80 - 120
Lead, Total	6010C	523	500	105		80 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Form 3C

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QA/QC Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Water

Service Request: R1203891
Date Analyzed: 6/21/12

Lab Control Sample Summary
Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 160823

Analyte Name	Lab Control Sample RQ1206975-02			Duplicate Lab Control Sample RQ1206975-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Aroclor 1260	0.385	0.500	77	0.395	0.500	79	51 - 123	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Form 3C

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SuperSet Reference: 12-0000215557 rev 00

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COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: Barton & Loguidice, PC
Project: Metalico CAMU/1206.002.005
Sample Matrix: Soil

Service Request: R1203891
Date Analyzed: 6/22/12

Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3541

Units: µg/Kg
Basis: Dry

Extraction Lot: 160930

Analyte Name	Lab Control Sample RQ1207025-02			Duplicate Lab Control Sample RQ1207025-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Aroclor 1260	140	167	84	140	167	84	58 - 129	<1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Printed 7/5/12 10:00

Form 3C

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SuperSet Reference: 12-0000215557 rev 00

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August 16, 2012

Service Request No: R1204955

Mr. John Benson
Barton & Loguidice, PC
290 Elwood Davis Drive
P.O. Box 3107
Syracuse, NY 13220

Laboratory Results for: Metalico Site/1206.002.007

Dear Mr. Benson:

Enclosed are the results of the sample(s) submitted to our laboratory on August 1, 2012. For your reference, these analyses have been assigned our service request number **R1204955**.

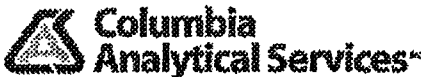
All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7473. You may also contact me via email at Deb.Patton@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Environmental

Deb Patton
Project Manager



ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623

PHONE 585-288-5380 | FAX 585-288-8475

Columbia Analytical Services, Inc.

Part of the ALS Group A Campbell Brothers Limited Company

<http://www.caslab.com>

www.caslab.com = www.alsglobal.com

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CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1204955

<u>Lab ID</u>	<u>Client ID</u>
R1204955-001	SW-002B
R1204955-002	SW-002A

All samples were received in good condition unless otherwise noted on the cooler receipt and preservation check form located at the end of this report.

All samples were preserved in accordance with approved analytical methods.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

All sampling activities performed by CAS personnel have been in accordance with "CAS Field Procedures and Measurements Manual" or by client specifications.

REPORT QUALIFIERS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- * Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
- H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
- # Spike was diluted out.
- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Concentration >40% (25% for CLP) difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).
- X See Case Narrative for discussion.



CAS/Rochester Lab ID # for State Certifications¹

NELAP Accredited
Connecticut ID # PH0556
Delaware Accredited
DoD ELAP #65817
Florida ID # E87674
Illinois ID #200047
Maine ID #NY0032
Nebraska Accredited

Nevada ID # NY-00032
New Jersey ID # NY004
New York ID # 10145
New Hampshire ID # 294100 A/B
North Carolina #676
Pennsylvania ID# 68-786
Rhode Island ID # 158
Virginia #460167

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to the certifications section at www.caslab.com.

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico Site/1206.002.007
Sample Matrix: Soil
Sample Name: SW-002B
Lab Code: R1204955-001

Service Request: R1204955
Date Collected: 7/31/12 1300
Date Received: 8/ 1/12

Basis: As Received**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	53.0	Percent	1.0	1	NA	8/6/12 13:50	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico Site/1206.002.007
Sample Matrix: Soil

Sample Name: SW-002B
Lab Code: R1204955-001

Service Request: R1204955
Date Collected: 7/31/12 1300
Date Received: 8/ 1/12

Basis: Dry
Percent Solids: 53.0

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	6.6		mg/Kg	1.8	1	8/ 8/12	8/13/12 19:42	
Lead, Total	6010C	285		mg/Kg	9.0	1	8/ 8/12	8/13/12 19:42	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico Site/1206.002.007
Sample Matrix: Soil

Service Request: R1204955
Date Collected: 7/31/12 1300
Date Received: 8/ 1/12
Date Extracted: 8/6/12
Date Analyzed: 8/8/12 15:25

Sample Name: SW-002B
Lab Code: R1204955-001

Units: µg/Kg
Basis: Dry
Percent Solids: 53.0

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3541
Data File Name: J:\ACQU\DATA\6890G\DATA\080812\AS133.D\

Analysis Lot: 304092
Extraction Lot: 163997
Instrument Name: R-GC-58
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
12674-11-2	Aroclor 1016	62 U	62	33	
11104-28-2	Aroclor 1221	130 U	130	65	
11141-16-5	Aroclor 1232	62 U	62	33	
53469-21-9	Aroclor 1242	62 U	62	33	
12672-29-6	Aroclor 1248	120	62	33	
11097-69-1	Aroclor 1254	91	62	36	
11096-82-5	Aroclor 1260	44 J	62	33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	62	32-141	8/8/12 15:25	
Tetrachloro-m-xylene	58	12-136	8/8/12 15:25	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico Site/1206.002.007
Sample Matrix: Soil
Sample Name: SW-002A
Lab Code: R1204955-002

Service Request: R1204955
Date Collected: 7/31/12 1315
Date Received: 8/ 1/12

Basis: As Received**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	56.6	Percent	1.0	1	NA	8/6/12 13:50	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico Site/1206.002.007
Sample Matrix: Soil
Sample Name: SW-002A
Lab Code: R1204955-002

Service Request: R1204955
Date Collected: 7/31/12 1315
Date Received: 8/ 1/12

Basis: Dry
Percent Solids: 56.6

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	17.9	mg/Kg	1.7	1	8/ 8/12	8/13/12 19:48	
Lead, Total	6010C	925	mg/Kg	8.7	1	8/ 8/12	8/13/12 19:48	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico Site/1206.002.007
Sample Matrix: Soil

Service Request: R1204955
Date Collected: 7/31/12 1315
Date Received: 8/ 1/12
Date Extracted: 8/6/12
Date Analyzed: 8/8/12 15:59

Sample Name: SW-002A
Lab Code: R1204955-002

Units: µg/Kg
Basis: Dry
Percent Solids: 56.6

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3541
Data File Name: J:\ACQUDATA\6890G\DATA\080812\AS134.D\

Analysis Lot: 304092
Extraction Lot: 163997
Instrument Name: R-GC-58
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
12674-11-2	Aroclor 1016	58	U	58	31	
11104-28-2	Aroclor 1221	120	U	120	61	
11141-16-5	Aroclor 1232	58	U	58	31	
53469-21-9	Aroclor 1242	58	U	58	31	
12672-29-6	Aroclor 1248	150		58	31	
11097-69-1	Aroclor 1254	130		58	34	
11096-82-5	Aroclor 1260	53	J	58	31	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	65	32-141	8/8/12 15:59	
Tetrachloro-m-xylene	66	12-136	8/8/12 15:59	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico Site/1206.002.007
Sample Matrix: Soil
Sample Name: Method Blank
Lab Code: R1204955-MB1

Service Request: R1204955
Date Collected: NA
Date Received: NA

Basis: As Received**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	1.0 U	Percent	1.0	1	NA	8/6/12 13:50	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico Site/1206.002.007
Sample Matrix: Soil
Sample Name: Method Blank
Lab Code: R1204955-MB2

Service Request: R1204955
Date Collected: NA
Date Received: NA

Basis: As Received**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	1.0 U	Percent	1.0	1	NA	8/6/12 13:50	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico Site/1206.002.007
Sample Matrix: Soil

Service Request: R1204955**Date Collected:** NA**Date Received:** NA

Sample Name: Method Blank
Lab Code: R1204955-MB

Basis: Dry**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	1.0 U	mg/Kg	1.0	1	8/ 8/12	8/13/12 15:09	
Lead, Total	6010C	5.0 U	mg/Kg	5.0	1	8/ 8/12	8/13/12 15:09	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico Site/1206.002.007
Sample Matrix: Soil

Service Request: R1204955
Date Collected: NA
Date Received: NA
Date Extracted: 8/6/12
Date Analyzed: 8/6/12 15:50

Sample Name: Method Blank
Lab Code: RQ1208948-01

Units: µg/Kg
Basis: Dry

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3541
Data File Name: J:\ACQUDATA\6890G\DATA\080612\AS102.D\

Analysis Lot: 303681
Extraction Lot: 163997
Instrument Name: R-GC-58
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
12674-11-2	Aroclor 1016	33 U	33	17	
11104-28-2	Aroclor 1221	67 U	67	34	
11141-16-5	Aroclor 1232	33 U	33	17	
53469-21-9	Aroclor 1242	33 U	33	17	
12672-29-6	Aroclor 1248	33 U	33	17	
11097-69-1	Aroclor 1254	33 U	33	19	
11096-82-5	Aroclor 1260	33 U	33	17	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	82	32-141	8/6/12 15:50	
Tetrachloro-m-xylene	75	12-136	8/6/12 15:50	

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: Barton & Loguidice, PC
Project: Metalico Site/1206.002.007
Sample Matrix: Soil

Service Request: R1204955
Date Analyzed: 8/13/12

Lab Control Sample Summary
Inorganic Parameters

Units: mg/Kg
Basis: Dry

Analyte Name	Method	Lab Control Sample R1204955-LCS			
		Result	Spike Amount	% Rec	% Rec Limits
Arsenic, Total	6010C	87.3	94.5	92	82.3 - 117
Lead, Total	6010C	88.8	91.8	97	82.2 - 117

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Form 3C

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SuperSet Reference: 12-0000220137 rev 00



August 31, 2012

Service Request No: R1205209

Mr. John Benson
Barton & Loguidice, PC
290 Elwood Davis Drive
P.O. Box 3107
Syracuse, NY 13220

Laboratory Results for: Metalico Monitoring Wells/1206.001

Dear Mr. Benson:

Enclosed are the results of the sample(s) submitted to our laboratory on August 9, 2012. For your reference, these analyses have been assigned our service request number **R1205209**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7473. You may also contact me via email at Deb.Patton@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Environmental

Deb Patton
Project Manager



ADDRESS 1555 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623

PHONE 585-288-5380 FAX 585-288-8475

Columbia Analytical Services, Inc.

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COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico Monitoring Wells/1206.001
Sample Matrix: Water
Sample Name: MW-8R
Lab Code: R1205209-001

Service Request: R1205209
Date Collected: 8/ 9/12 0945
Date Received: 8/ 9/12

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	16		µg/L	10	1	8/14/12	8/22/12 11:06	
Lead, Total	6010C	50	U	µg/L	50	1	8/14/12	8/22/12 11:06	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico Monitoring Wells/1206.001
Sample Matrix: Water
Sample Name: MW-8R Dissolved
Lab Code: R1205209-002

Service Request: R1205209
Date Collected: 8/9/12 0945
Date Received: 8/9/12

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10	1	8/14/12	8/22/12 11:12	
Lead, Dissolved	6010C	50	U	µg/L	50	1	8/14/12	8/22/12 11:12	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico Monitoring Wells/1206.001
Sample Matrix: Water

Service Request: R1205209
Date Collected: 8/ 9/12 0945
Date Received: 8/ 9/12
Date Extracted: 8/16/12
Date Analyzed: 8/22/12 13:06

Sample Name: MW-8R
Lab Code: R1205209-001

Units: µg/L
Basis: NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C
Data File Name: J:\ACQUDATA\6890G\DATA\082212\AS261.D\

Analysis Lot: 306248
Extraction Lot: 164854
Instrument Name: R-GC-58
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
12674-11-2	Aroclor 1016	0.047 U	0.047	
11104-28-2	Aroclor 1221	0.047 U	0.047	
11141-16-5	Aroclor 1232	0.047 U	0.047	
53469-21-9	Aroclor 1242	0.047 U	0.047	
12672-29-6	Aroclor 1248	0.047 U	0.047	
11097-69-1	Aroclor 1254	1.3	0.047	
11096-82-5	Aroclor 1260	0.18 P	0.047	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	49	10-146	8/22/12 13:06	
Tetrachloro-m-xylene	52	14-138	8/22/12 13:06	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico Monitoring Wells/1206.001
Sample Matrix: Water

Service Request: R1205209
Date Collected: 8/ 9/12 0945
Date Received: 8/ 9/12
Date Extracted: 8/24/12
Date Analyzed: 8/29/12 15:08

Sample Name: MW-8R
Lab Code: R1205209-001
Run Type: Reanalysis

Units: µg/L
Basis: NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C
Data File Name: J:\ACQUDATA\6890G\DATA\082912\AS332.D\

Analysis Lot: 307318
Extraction Lot: 165564
Instrument Name: R-GC-58
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
12674-11-2	Aroclor 1016	0.047	U	0.047	*
11104-28-2	Aroclor 1221	0.047	U	0.047	*
11141-16-5	Aroclor 1232	0.047	U	0.047	*
53469-21-9	Aroclor 1242	0.047	U	0.047	*
12672-29-6	Aroclor 1248	0.80		0.047	*
11097-69-1	Aroclor 1254	1.1		0.047	*
11096-82-5	Aroclor 1260	0.13	P	0.047	*

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	53	10-146	8/29/12 15:08	
Tetrachloro-m-xylene	66	14-138	8/29/12 15:08	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico Monitoring Wells/1206.001
Sample Matrix: Water
Sample Name: B-290
Lab Code: R1205209-003

Service Request: R1205209
Date Collected: 8/9/12 0850
Date Received: 8/9/12

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10		µg/L	10	1	8/14/12	8/22/12 11:18	
Lead, Total	6010C	50	U	µg/L	50	1	8/14/12	8/22/12 11:18	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico Monitoring Wells/1206.001
Sample Matrix: Water
Sample Name: B-290 Dissolved
Lab Code: R1205209-004

Service Request: R1205209
Date Collected: 8/9/12 0850
Date Received: 8/9/12

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10	1	8/14/12	8/22/12 11:24	
Lead, Dissolved	6010C	50	U	µg/L	50	1	8/14/12	8/22/12 11:24	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico Monitoring Wells/1206.001
Sample Matrix: Water
Sample Name: B-402R
Lab Code: R1205209-005

Service Request: R1205209
Date Collected: 8/ 9/12 0915
Date Received: 8/ 9/12

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	12		µg/L	10	1	8/14/12	8/22/12 11:30	
Lead, Total	6010C	50	U	µg/L	50	1	8/14/12	8/22/12 11:30	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico Monitoring Wells/1206.001
Sample Matrix: Water
Sample Name: B-402R Dissolved
Lab Code: R1205209-006

Service Request: R1205209
Date Collected: 8/ 9/12 0915
Date Received: 8/ 9/12

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10	1	8/14/12	8/22/12 11:47	
Lead, Dissolved	6010C	50	U	µg/L	50	1	8/14/12	8/22/12 11:47	

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico Monitoring Wells/1206.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1205209-MB

Service Request: R1205209
Date Collected: NA
Date Received: NA

Basis: NA**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10	1	8/14/12	8/22/12 08:19	
Arsenic, Total	6010C	10	U	µg/L	10	1	8/14/12	8/22/12 08:19	
Lead, Dissolved	6010C	50	U	µg/L	50	1	8/14/12	8/22/12 08:19	
Lead, Total	6010C	50	U	µg/L	50	1	8/14/12	8/22/12 08:19	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico Monitoring Wells/1206.001
Sample Matrix: Water

Service Request: R1205209
Date Collected: NA
Date Received: NA
Date Extracted: 8/16/12
Date Analyzed: 8/22/12 11:24

Sample Name: Method Blank
Lab Code: RQ1209471-01

Units: µg/L
Basis: NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C
Data File Name: J:\ACQUDATA\6890G\DATA\082212\AS258.D\

Analysis Lot: 306248
Extraction Lot: 164854
Instrument Name: R-GC-58
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
12674-11-2	Aroclor 1016	0.050	U	0.050	
11104-28-2	Aroclor 1221	0.050	U	0.050	
11141-16-5	Aroclor 1232	0.050	U	0.050	
53469-21-9	Aroclor 1242	0.050	U	0.050	
12672-29-6	Aroclor 1248	0.050	U	0.050	
11097-69-1	Aroclor 1254	0.050	U	0.050	
11096-82-5	Aroclor 1260	0.050	U	0.050	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	61	10-146	8/22/12 11:24	
Tetrachloro-m-xylene	57	14-138	8/22/12 11:24	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Barton & Loguidice, PC
Project: Metalico Monitoring Wells/1206.001
Sample Matrix: Water

Service Request: R1205209
Date Collected: NA
Date Received: NA
Date Extracted: 8/24/12
Date Analyzed: 8/29/12 13:26

Sample Name: Method Blank
Lab Code: RQ1209904-01

Units: µg/L
Basis: NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C
Data File Name: J:\ACQU\DATA\6890G\DATA\082912\AS329.D\

Analysis Lot: 307318
Extraction Lot: 165564
Instrument Name: R-GC-58
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
12674-11-2	Aroclor 1016	0.050	U	0.050	
11104-28-2	Aroclor 1221	0.050	U	0.050	
11141-16-5	Aroclor 1232	0.050	U	0.050	
53469-21-9	Aroclor 1242	0.050	U	0.050	
12672-29-6	Aroclor 1248	0.050	U	0.050	
11097-69-1	Aroclor 1254	0.050	U	0.050	
11096-82-5	Aroclor 1260	0.050	U	0.050	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	61	10-146	8/29/12 13:26	
Tetrachloro-m-xylene	61	14-138	8/29/12 13:26	

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: Barton & Loguidice, PC
Project: Metalico Monitoring Wells/1206.001
Sample Matrix: Water

Service Request: R1205209
Date Analyzed: 8/22/12

Lab Control Sample Summary
Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 164854

Analyte Name	Lab Control Sample RQ1209471-02			Duplicate Lab Control Sample RQ1209471-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Aroclor 1260	0.050 U	0.500	0 *	0.127	0.500	25 *	51 - 123	200 *	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: Barton & Loguidice, PC
Project: Metalico Monitoring Wells/1206.001
Sample Matrix: Water

Service Request: R1205209
Date Analyzed: 8/29/12

Lab Control Sample Summary
Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 165564

Analyte Name	Lab Control Sample RQ1209904-02			Duplicate Lab Control Sample RQ1209904-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Aroclor 1260	0.406	0.500	81	0.466	0.500	93	51 - 123	14	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Form 3C

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SuperSet Reference: 12-0000221636 rev 00